## $^{177}$Au $\alpha$ decay (1.00 s) 2009An14

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | J. Tuli | ENSDF | 15-Aug-2015 |

Parent: $^{177}$Au: E=189 *16*; $J^{\pi}=11/2^-$; $T_{1/2}$=1.00 s *20*; Q($\alpha$)=6298 *4*; %$\alpha$ decay=66 *10*

$^{177}$Au-E,$T_{1/2}$: From 2009An14.

$^{177}$Au-Q($\alpha$): from 2012WA38.

$^{177}$Au-$J^{\pi}$: From 2014An10, Configuration=($\pi$ $1h_{11/2}$).

$^{177}$Au-%$\alpha$ decay: %$\alpha$=66 *10* (2009An14).

2009An14 (also given in 2014An10):

$^{177}$Au source from $\alpha$ decay of $^{181}$Tl, which was produced in $^{144}$Sm($^{40}$Ca,p2n) reaction at E=177-229 MeV. Measured Ea, I$\alpha$, $\alpha\gamma$ coin, E$\gamma$, K x ray and $\gamma\gamma$ coin using a large-volume fourfold segmented clover germanium detector, three time-of-flight detectors, and 16-strip position-sensitive silicon strip detector (PSSD) at GSI facility.

1975Ca06: Sources from $^{141}$Pr($^{40}$Ca,4n) (E($^{40}$Ca)=180-290 MeV), helium-jet transport; measured E$\alpha$,I$\alpha$. Perhaps includes isomer decay.

1996Pa01: Measured $\alpha$, $T_{1/2}$. $T_{1/2}$($^{177}$Au)=1300 ms *200*.

### $^{173}$Ir Levels

| E(level) | $J^{\pi}$ | Comments |
|---|---|---|
| 0 | $(3/2^+,5/2^+)$ | $J^{\pi}$: From Adopted Levels. |
| 226 *18* | $11/2^-$ | E(level),$J^{\pi}$: from 2014An10. |

### $\alpha$ radiations

| E$\alpha$ | E(level) | Comments |
|---|---|---|
| 6124 *7* | 226 | E$\alpha$: from 2009An14. OTHER: 6110 10 (1975CA06), 6118 9 (1996PA01). |