

^{108}Te α decay

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

Parent: ^{108}Te : $E=0.0$; $J^\pi=0^+$; $T_{1/2}=2.1$ s I ; $Q(\alpha)=3445$ 4 ; $\% \alpha$ decay= 49 4

$T_{1/2}(^{108}\text{Te})=2.1$ s I , measured by [1979Sc22](#) and adopted in [1991Bl02](#), is used in calculations here. $T_{1/2}=2.00$ s 26 is given in [1995Sc28](#) as their preliminary measurement.

$\% \alpha(^{108}\text{Te})=49$ 4 was measured by [1994Pa11](#) and is used in calculations here. The α branching of 68% 12 was adopted by [1991Bl02](#) from the $I\alpha(^{108}\text{Te})/I\alpha(^{112}\text{Xe})$ measurements of [1978Ro19](#).

$Q(\alpha)(^{108}\text{Te})=3445$ 4 is the recommended value of [1995Au04](#).

 ^{104}Sn Levels

<u>E(level)</u>	<u>J^π</u>
0.0	0^+

 α radiations

<u>$E\alpha$</u>	<u>E(level)</u>	<u>$I\alpha^{\dagger\#}$</u>	<u>$\text{HF}^{\ddagger}$</u>	<u>Comments</u>
3318 4	0.0	100	1.0	$E\alpha$ is the measurement of 1991He21 . $E\alpha=3320$ 20 was measured by 1981Sc17 . $I\alpha$: only one α group has been observed. An upper limit for an unobserved 2102-keV α to the 1259-keV, first 2^+ state in ^{104}Sn is estimated from $\text{Hf}(\alpha \text{ to } 2^+) > 1$ to be $I\alpha(2102\alpha)/I\alpha(3318\alpha) < 6 \times 10^{-12}$.

† α intensity per 100 α decays.

‡ $r_0(^{104}\text{Sn})=1.632$ 14 is computed from $\text{Hf}(3318\alpha)=1.0$.

$^{\#}$ For absolute intensity per 100 decays, multiply by 0.49 4 .