

<sup>186</sup>Os  $\alpha$  decay 1975Vi01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 130, 21 (2015)	15-Jul-2015

Parent: <sup>186</sup>Os: E=0.0; J $\pi$ =0<sup>+</sup>; T<sub>1/2</sub>=2.0×10<sup>15</sup> y 11; Q( $\alpha$ )=2820.4 12; % $\alpha$  decay=100.0

<sup>186</sup>Os-T<sub>1/2</sub>: From <sup>186</sup>Os Adopted Levels.

<sup>186</sup>Os-Q( $\alpha$ ): From 2012Wa38.

<sup>186</sup>Os-% $\alpha$  decay: % $\alpha$ =100.

T<sub>1/2</sub>(<sup>186</sup>Os)=2.0×10<sup>15</sup> y 11, measured by 1975Vi01, is adopted in 2003Ba44 and is recommended by 1990Ho28. This half-life is used in calculations here.

% $\alpha$ =100. <sup>186</sup>Os is  $\beta$  stable.

<sup>182</sup>W Levels

E(level)	J $\pi$
0.0	0 <sup>+</sup>

$\alpha$  radiations

E $\alpha$	E(level)	HF <sup>†</sup>	Comments
2759.7 12	0.0	1.0	E $\alpha$ : deduced from Q( $\alpha$ )( <sup>186</sup> Os)=2820.4 12. E $\alpha$ ≈2760 was measured by 1975Vi01. I $\alpha$ : only one $\alpha$ group has been observed. An upper limit of 5% is calculated for an unobserved 2663.4-keV $\alpha$ to the 2 <sup>+</sup> state at 100.1060 keV by requiring its hindrance factor to be greater than 1. I $\alpha$ (2759.7 $\alpha$ )=97.5% 25 (I $\alpha$ >95%) is used in computations.

<sup>†</sup> Calculations requiring HF(2761 $\alpha$ )=1.0 yield r<sub>0</sub>(<sup>182</sup>W)=1.49 3.