

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 108,1057 (2007)	1-Mar-2007

$S(n)=8.14\times 10^3$ 9; $S(p)=4.1\times 10^2$ 6; $Q(\alpha)=8097$ 15 [2012Wa38](#)

Note: Current evaluation has used the following Q record 8140 110 420 70 8097 15 [2003Au03](#).

Calculations: spontaneous emission of heavy ions: [1986Po06](#).

[1982SoZR](#) searched for ε -delayed fission from ^{216}Pa . The following upper limits in units of 1×10^{-9} barns were obtained.

$^{197}\text{Au}(^{24}\text{Mg},5n)$ $E=129-137$ MeV (≤ 0.4), 140-146 MeV (≤ 0.6), $^{183}\text{W}(^{37}\text{Cl},4n)$ $E\leq 185$ MeV (≤ 13), $^{182}\text{W}(^{37}\text{Cl},3n)$ $E\leq 185$ MeV (≤ 7), $^{184}\text{W}(^{37}\text{Cl},5n)$ $E\leq 185$ MeV (≤ 6).

Assignment: $^{189}\text{Os}(^{31}\text{P},4n)$ $E=150-190$ MeV excit ([1971Su14](#))
 $^{190}\text{Os}(^{31}\text{P},5n)$ $E=150-190$ MeV excit ([1971Su14](#))
 $^{197}\text{Au}(^{24}\text{Mg},5n)$ $E=146$ MeV ([1971Su14](#))
 $^{181}\text{Ta}(^{40}\text{Ar},5n)$ $E=165-202$ MeV excit ([1979Sc09](#))

 ^{216}Pa Levels

E(level)	$T_{1/2}$	Comments
0	0.15 s +6-4	$\% \varepsilon \approx 2$ syst; $\% \alpha \approx 98$ syst $\% \varepsilon$: from gross β -decay strength function (1973Ta30). $T_{1/2}$: average of data from 1998Ik01 : 0.15 s +7-4 and 0.14 +5-3. Others: 0.105 s 12 (1996An21); 0.17 s +10-4 (1979Sc09); 0.20 s 4 from 1971Su14 . $E\alpha=7948$ keV 15, 7815 keV 15, 7793 keV 15 (2000He17); 796050, 7830 50 (1998Ik01); 7948 keV 10, 7856 keV 20, 7838 keV 20, 7815 keV 20 (1996An21).