Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Y. A. Akovali	NDS 87,301 (1999)	1-Oct-1998

Q(β^-)=−6.78×10^3 *syst*; S(n)=8.08×10^3 *syst*; S(p)=2.73×10^3 *6*; Q(α)=9901 *11* 2012Wa38
Note: Current evaluation has used the following Q record −6863 syst 8273 syst 2898 syst 9923 30 1995Au04.

Assignment:
^{207}Pb(^{54}Cr,n), ^{208}Pb(^{54}Cr,2n); parent of ^{256}Rf (1984De07,1984Og03,1985Mu11)

^{260}Sg Levels

Cross Reference (XREF) Flags

A ^{264}Hs α decay

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	0$^+$	3.6 ms *9*	A	%α=50 *+20−30*; %SF=50 *+30−20* T$_{1/2}$(^{260}Sg)=3.6 ms *+9−6* was obtained by 1985Mu11 from α counts; T$_{1/2}$=2.5 ms *15* was deduced by 1984De07 from fission counts (T$_{1/2}$(SF)=6 ms *+2−1* was measured from SF activities, and the time distribution of fission fragments were utilized in calculation of the half-life by subtracting the SF activities of ^{256}Rf, the α daughter; %α>80 was assumed). T$_{1/2}$(^{260}Sg)=3.6 ms *9* is adopted. %α=50 *+20−30* was obtained by 1985Mu11. Other measurements: %$\alpha\geq$80 (1984De07,1984Og03). By requiring the α hindrance factor for the observed 9770-keV α transition to the ^{256}Rf g.s. to be 1.0, r$_0$(^{256}Rf)=1.486 is calculated, if the α branching is 50% and Iα(9770α)=83 per 100 α decays. This r$_0$ is much larger than the expected value of 1.465 *20* from the trend of r$_0$'s given in 1998Ak04. Calculations using r$_0$(^{256}Rf)=1.465 *20* yield T$_{1/2}$(α)=12 ms *+6−5* which corresponds to %α=30 *+20−10*. The theoretical calculations of 1997Mo25 give T$_{1/2}$(α)=7.08 ms; by semiempirical formula, 1997Po18 calculated T$_{1/2}$(α)=9 ms; 1995KoZL calculated T$_{1/2}$(α)=6 ms. The partial half-life for spontaneous fission was calculated by 1993Sm03, 1989St20, 1987Mo16, 1985Lo17 and 1978Po09. The partial β half-life was calculated by 1997Mo25 as 22.0 s. This calculated β half-life predicts %β^+=0.016.