^{241}Cf α decay 1970Si19

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 107, 2323 (2006)	15-Mar-2006

Parent: ^{241}Cf: E=0.0; $T_{1/2}$=3.78 min *70*; Q(α)=7660 *SY*; %α decay=25.0

^{241}Cf was produced bombarding 97% enriched ^{234}U with 62-93 MeV (degraded from 118-MeV initial beam energy) ^{12}C beam.

^{237}Cm Levels

E(level)
(0.0)
≈194

α radiations

Eα	E(level)	Comments
7342 *5*	≈194	Eα: measurement of 1970Si19 (semi). The original energy of 7335 is increased by the evaluator by 7 keV, because of changes in calibration energies, as recommended in 1991Ry01, from Eα(^{214}Po)=7680 to 7686.82 *7*, and from Eα(^{217}Rn)=7735 to 7741.3 *28*. Other measurement: 1967Fi04. Iα: only one group was observed. Analogy to ^{235}U α decay suggests that the 7342-keV α and any α populating the expected 9/2$^-$ member of the 7/2[743] band should have relative intensities of 86/14 with HF′s of 2.0/3.6. HF=2.0 *15*, if Iα=76 *6*, %α=25 *5* (r_0(^{237}Cm)=1.505 *15* is used in calculations).