

^{215}Fr α decay:prompt:835 keV [1984Sc25](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	B. Singh, S. Singh, H. X. Nguyen and M. Patial		NDS 114, 661 (2013)	28-Feb-2013

Parent: ^{215}Fr : E=835.5 *I*; $J^\pi=(13/2)^+$; $Q(\alpha)=9540$ *7*; % α decay=4.3 *15*

^{215}Fr -E, J^π : From Adopted Levels of ^{215}Fr in ENSDF database.

^{215}Fr - $Q(\alpha)$: From [2012Wa38](#).

^{215}Fr -% α decay: % α =4.3 *15* (deduced by evaluators from $I\alpha(10160)/I\alpha(\text{total})=3.8\%$ *15* ([1984Sc25](#)), and renormalizing g.s. α branch from 87.7% to 100%. It is assumed by the evaluators that [1984Sc25](#) have corrected for 78% detection of the ground state α branch in $\alpha\gamma$ -coin spectrum.

[1984Sc25](#): observed alpha from $^{208}\text{Pb}(^{11}\text{B},4n)$ E=66 MeV.

Target: >99% enriched ^{208}Pb . Measured E γ , I γ , E α , $\gamma\gamma$ - coin, $\gamma\gamma(t)$, pulsed-beam, $\gamma(\theta)$. Deduced α -particle branches.

 ^{211}At Levels

E(level)	J^π
0.0	$9/2^-$

 α radiations

E $\alpha^\dagger$	E(level)	$I\alpha^\ddagger\#$	Comments
10160 30	0.0	100	α from 835.5, (13/2) ⁺ level of ^{215}Fr .

[†] Long-range α particle group from 835-keV level in ^{215}Fr .

[‡] From $\alpha\gamma$ -coin and relative to the total number of α particles in the spectrum.

For absolute intensity per 100 decays, multiply by 0.043 *15*.