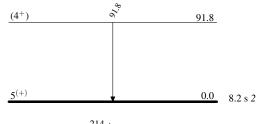
Adopted Levels, Gammas

	Type Full Evaluation	History Author Shaofei Zhu and E. A. Mccutchan	Citation NDS 175, 1 (2021)	Literature Cutoff Date 1-May-2021
$Q(\beta^-) = -4262 \ 17; \ S(n) = 7779 \ 18; \ S(p) = 1201 \ 17; \ Q(\alpha) = 7351.9 \ 25$ 2021Wa16 $S(2n) = 1.701E + 4 \ 3; \ S(2p) = 4629 \ 16; \ Q(\varepsilon p) = 2699 \ 14 \ (2021Wa16).$				
²¹⁴ Ac Levels				
Cross Reference (XREF) Flags				
A 218 Pa α decay (107 μ s) B 218 Pa α decay (0.13 ms)				
E(level) J^{π}	T _{1/2} XREF	Comments		
$\frac{\text{E(level)}}{0.0} \frac{J^{\pi}}{5^{(+)}} \frac{\text{T}_{1/2}}{\text{8.2 s 2}} \frac{\text{XREF}}{\text{AB}} \qquad \frac{\text{Comments}}{\frac{\varphi_{\alpha} \geq 89 \ 3; \ \% \varepsilon \leq 11 \ 3}}{\frac{\varphi_{\alpha} \geq 89 \ 3; \ \% \varepsilon \leq 11 \ 3}{\varphi_{\alpha} = +0.14 \ 8; \ \mu = +4.84 \ 10}} \\ \frac{\varphi_{\alpha} \geq 89 \ 3; \ \% \varepsilon \leq 11 \ 3}{\varphi_{\alpha} = +0.14 \ 8; \ \mu = +4.84 \ 10} \\ \mu: \ \text{deduced from } g=0.967 \ 20 \ \text{and } J=5 \ \text{measured in } 2017 \text{Gr18} \ \text{with uncertainty deduced by} \\ \text{quadratic addition of statistical uncertainty of } 0.014 \ \text{and systematic uncertainty of } 0.014 \\ (1\sigma); \ \text{other: } \ \mu = 4.234 \ 8 \ \text{referenced to a calculated value of } \mu = 1.07 \ \text{of } \ ^{227}\text{Ac} \ (2017 \text{Gr18}). \\ \text{Both values were from in-beam Laser measurements.} \\ \text{Q: from } 2016\text{Fe11 and } 2017\text{Gr18} \ \text{with uncertainty of } 0.06. \\ \Delta < r^2 > = -0.0770 \ \text{fm}^2 \ 10 \ \text{relative to } \ ^{215}\text{Ac} \ (2016\text{Fe11}) \ \text{from isotope shift measurement with} \\ \text{uncertainty deduced by quadratic addition of statistical uncertainty of } 0.0004 \ (2\sigma) \ \text{and} \\ \text{systematic uncertainty deduced by quadratic addition of statistical uncertainty of 0.0004 \ (2\sigma) \ \text{and} \\ \text{systematic uncertainty of } 0.0010 \ (1\sigma). \\ \text{T}_{1/2}: \ \text{from 1968Va04}. \ \text{Others: } 12 \ \text{s} \ (1961\text{Gr42}), \ 8.6 \ \text{s} + 50 - 15 \ (1979\text{Sc09}), \ \text{and } 8.6 \ \text{s} + 70 - 27 \ (2020\text{Zh01}). \\ J^{\pi}: \ J \ \text{from fit of the observed hyperfine spectrum (2017\text{Gr18}), \ \pi \ \text{based on systematics} \ (2017\text{Gr18}, \ 2020\text{Zh01}). \\ \varthetae_{\varepsilon}: \ \text{deduced from the ratio of } I\alpha^{(214}\text{Ac}) \ \text{and } I\alpha^{(214}\text{Ra}) \ \text{at equilibrium (1968Va04)}. \\ \text{E(level): from } \text{E}\gamma \ (2000\text{He17}, \ 2020\text{Zh01}). \\ J^{\pi}: \ \text{based on systematics} \ (2020\text{Zh01}). \\ J^{\pi$				
$\gamma^{(214}Ac)$				
$\frac{\mathrm{E}_i(\mathrm{level})}{91.8} \frac{\mathrm{J}_i^{\pi}}{(4^+)} \frac{1}{9}$	$\frac{E_{\gamma}}{91.8 \ 4} \frac{E_f}{0.0} \frac{J_f^{\pi}}{5^{(+)}}$	Comments E _v : weighted average of 91.8 <i>4</i> (2000He17) and 91.8 <i>8</i> (2020Zh01).		

Adopted Levels, Gammas

Level Scheme



²¹⁴₈₉Ac₁₂₅