

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ohya	NDS 111,1619 (2010)	20-Jan-2009

S(p)=-890 10; Q(α)= 2.5×10^3 syst 2012Wa38

Note: Current evaluation has used the following Q record -837 502508 syst.

S(p) from 2005Ro19, 2009AuZZ give -840 50, Q(α) from 2009AuZZ, $\Delta Q(\alpha)=807$ (syst,2009AuZZ), Q(ϵp)=8820 862 (syst,2009AuZZ).

Identification: 2005Ro19; $^{92}\text{Mo}(^{36}\text{Ar},p6n)$ reaction at E=240 MeV. fragment mass analyzer, measured E(p), I(p), lifetime, identified by A/q, time of arrival and energy-loss signal. A transition with E(p)=882 keV 10 and $T_{1/2}=10$ ms +6-3 has been assigned the decay of ^{121}Pr g.s.

1972Bo28,1990Bo39; $^{96}\text{Ru}(^{32}\text{S},p6n)$ E=275 MeV, on-line ms, helium jet, proportional counter, E(p)=0.83 MeV 5 proton emitter with $T_{1/2}=1.4$ s 8 has been postulated as ^{121}Pr g.s. or a lighter isotope of Lanthanum (1972Bo28), confirmed ^{121}Pr g.s.(1990Bo39). However, the $T_{1/2}$ value is disagreement with 10 ms +6-3 (2005Ro19).

Tentative evidence of a second, weaker proton peak at ≈ 930 keV could be due to proton decay of an isomeric state in ^{121}Pr (2005Ro19).

 ^{121}Pr Levels

E(level)	J $^{\pi}$	$T_{1/2}$	S	Comments
0.0	(3/2)	10 ms +6-3	900 10	%p \approx 100 %p assumed by 2005Ro19 since the measured half-life is much shorter than the calculated β^+ decay half-life of ≈ 300 ms (1997Mo25). J $^{\pi}$: from calculation of with a highly prolate deformed 3/2 $^+$ or 3/2 $^-$ ground-state configuration (2005Ro19). $T_{1/2}$: from 2005Ro19. Other: 1.4 s 8 (1972Bo28).