Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan	NDS 133, 1 (2016)	30-Sep-2015

Q(β^-)=1.403×10^4 *8*; S(n)=4.98×10^3 *14*; S(p)=1.770×10^4 *24*; Q(α)=−1.721×10^4 *14* 2012Wa38
S(2n)=8.29×10^3 *120*; S(2p)=40554 syst *510*; Q(β^-n)=9.79×10^3 *80* (2012Wa38).

2004Gr20: ^{9}Be(^{48}Ca,X) reaction with E(^{48}Ca)=60 MeV/nucleon. Fragments separated with the LISE3 spectrometer and identified on an event-by-event basis using ΔE and time-of-flight measurements. Measured implant-β(t); deduced $T_{1/2}$. Subset of results given in 2004Gr28, 2003Gr22.

1989Le16: ^{181}Ta(^{48}Ca,X) reaction with E(^{48}Ca)=55 MeV/nucleon. Fragments separated with the LISE spectrometer and identified through ΔE and time-of-flight measurements. Measured β(t), β-n coincidences; deduced $T_{1/2}$ and %β^-n.

^{41}P Levels

Cross Reference (XREF) Flags

A ^{9}Be(^{44}S,Xγ)

E(level)†	$T_{1/2}$	XREF	Comments
0	101 ms *5*	A	%β^-=100; %β^-n=30 *10* $T_{1/2}$: weighted average of 100 ms *5* from implant-β(t) (2004Gr20) and 120 ms *20* from β(t) (1989Le16). Others: 150 ms *15* (1998WiZV), 1999YoZW. %β^-n: from 1989Le16. Other: 71 *21* (1999YoZW, preliminary value). J$^\pi$: 1/2$^+$ proposed from both systematics (2012Au07) and shell model calculations (2007Ba47), 3/2$^+$ from relativistic mean field model (2014Wa34).
172 *11*		A	J$^\pi$: shell model calculations predict 3/2$^+$ for a level at 235 keV (2007Ba47).
1145 *17*		A	J$^\pi$: shell model calculations predict 5/2$^+$ for levels at 990 keV and 1025 keV (2007Ba47).
1574 *19*		A	J$^\pi$: shell model calculations predict 3/2$^+$ for a level at 1400 keV (2007Ba47).

† From a least-squares fit to Eγ, by evaluators.

γ(^{41}P)

E$_i$(level)	E$_\gamma$†	E$_f$
172	172 *12*	0
1145	964 *22*	172
	1146 *28*	0
1574	420 *22*	1145
	1408 *19*	172

† From ^{9}Be(^{44}S,xγ).

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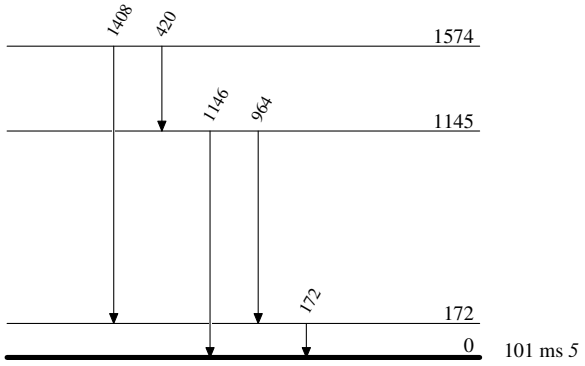
Level Scheme



$^{41}_{15}P_{26}$