^{29}P β^+ decay 1980Wi13

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 113, 909 (2012)	1-Jan-2012

Parent: ^{29}P: E=0; $J^\pi=1/2^+$; $T_{1/2}$=4.142 s *15*; Q(β^+)=4942.5 *6*; %β^+ decay=100.0

Other: 1990Ma48.

^{29}P was produced from ^{28}Si(d,n)^{29}P reaction, E=5.5 MeV, natural silicon; Ge(Li) detector; Measured: Eγ, absolute Iγ intensity.

^{29}Si Levels

E(level)[†]	J^π[‡]	$T_{1/2}$
0	$1/2^+$	stable
1273.391 *9*	$3/2^+$	
2028.17 *7*	$5/2^+$	
2425.98 *3*	$3/2^+$	

† From a least-squares fit to γ-ray energies.

‡ From Adopted Levels.

ε,β^+ radiations

E(decay)	E(level)	Iβ^+[‡]	Iε[‡]	Log *ft*	I($\varepsilon+\beta^+$)[†‡]	Comments
(2516.5 *6*)	2425.98	0.450 *14*	0.00616 *20*	4.172 *14*	0.456 *14*	av Eβ=634.92 *32*; εK=0.012287 *18*; εL=0.0011141 *1*; εM+=0.00010787
(2914.3 *6*)	2028.17	<0.005	<3.×10^{-5}	>6.6	<0.005	av Eβ=817.49 *33*; εK=0.006015 *7*; εL=0.0005453 *7*; εM+=5.279×10^{-5} *6*
(3669.1 *6*)	1273.391	1.26 *2*	0.00304 *6*	4.806 *7*	1.26 *2*	av Eβ=1172.29 *34*; εK=0.002195 *2*; εL=0.0001990 *2*; εM+=1.926×10^{-5} *2*
(4942.5 *6*)	0	98.22 *3*	0.0736 *7*	3.6812 *4*	98.29 *3*	av Eβ=1784.23 *34*; εK=0.0006814 *4*; εL=6.174×10^{-5} *4*; εM+=5.977×10^{-6} *4*

† From 1980Wi13.

‡ Absolute intensity per 100 decays.

γ(^{29}Si)

Iγ normalization: From 1980Wi13.

E$_\gamma$[†]	I$_\gamma$[‡#]	E$_i$(level)	J_i^π	E$_f$	J_f^π
1152.57 *3*	4.9 *3*	2425.98	$3/2^+$	1273.391	$3/2^+$
1273.361 *9*	100	1273.391	$3/2^+$	0	$1/2^+$
2028.09 *7*	<0.33	2028.17	$5/2^+$	0	$1/2^+$
2425.73 *20*	29.5 *7*	2425.98	$3/2^+$	0	$1/2^+$

† From Adopted Gammas.

‡ From 1980Wi13.

For absolute intensity per 100 decays, multiply by 0.01320 *22*.

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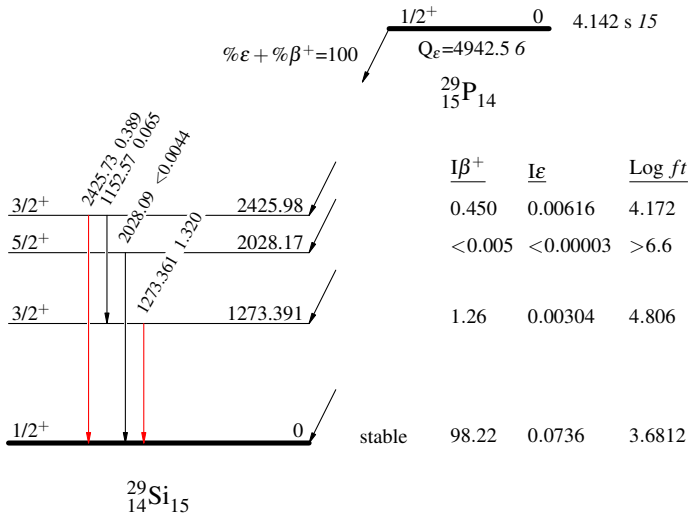
Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$



	Iβ+	Iε	Log *ft*
0.450	0.00616	4.172	
<0.005	<0.00003	>6.6	
1.26	0.00304	4.806	
98.22	0.0736	3.6812	