^{235}Np ε decay 1958Gi05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 122, 205 (2014)	1-Feb-2014

Parent: ^{235}Np: E=0; $J^{\pi}=5/2^{+}$; $T_{1/2}$=396.2 d *12*; Q(ε)=124.0 *9*; %ε decay=99.9974 *1*

No γ rays were observed. Based on (L xray)(L xray) coincidences, an upper limit of 2% was deduced for ε populations to levels above 13 keV, and from the 26-min activity in equilibrium with ^{235}Np, a total ε feeding of 0.1% to the 1/2[631] rotational band.

K x ray, L x ray studied by 1956Ho46, 1958Gi05, 1972Ha21, 1972Mc25, 1983Ah02. L x ray/K x ray= 18.5 *10* measured by 1983Ah02. L x ray= 34.0% *4*, Kα$_2$ x ray= 0.59% *14*, Kα$_1$ x ray= 0.95% *23*, Kβ x ray= 0.46% *11*, calculated by evaluator using the computer program RADLST.

^{235}U Levels

E(level)	J^{π}[†]	$T_{1/2}$[†]
0	$7/2^{-}$	7.04×10^{8} y *1*
0.07	$1/2^{+}$	≈26 min
13	$3/2^{+}$	
46	$9/2^{-}$	
52	$5/2^{+}$	
82	$7/2^{+}$	

[†] From Adopted Levels.

ε radiations

ε(L1)/ε(K)= 29 *4*, ε(L)/ε(K)= 32 *4*, ε(M)/ε(L)= 0.46 *3* (1972Mc25).

E(decay)	E(level)	Iε[†]	Log *ft*	Comments
(42.0 *9*)	82	<0.1	>8.5	
(72.0 *9*)	52	<0.1	>9.2	
(78.0 *9*)	46	<2	>8.0	
(111.0 *9*)	13	<0.1	>9.7	
(123.9 *9*)	0.07	<0.1	>9.8	
(124.0 *9*)	0	>97.9	<6.8	εK=0.021 *5*; εL=0.670 *3*; εM+=0.3084 *19*

[†] For absolute intensity per 100 decays, multiply by 0.999974 *1*.