^{161}Pm IT decay 2015YoZX

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Filip G. Kondev	ENSDF	20-Feb-2017

Parent: ^{161}Pm: E=965.9 *9*; J^π=(13/2$^+$); $T_{1/2}$=0.89 μs *6*; %IT decay=100.0

^{161}Pm produced via projectile fragmentation of a 345 MeV/nucleon ^{238}U beam on a 4-mm thick Be target at the RIBF facility of the RIKEN Nishina Center. Ions of interest were separated and identified on an ion-by-ion basis using the BigRIPS in-flight separator using the ΔE-ToF-Bρ method. Selected fragments were transported through the ZeroDegree spectrometer and implanted into the WAS3ABi Si array or a passive Cu stopper. Measured Eγ, γ, γγ coincidence, γ(t) using the EURICA array consisting of 12 large-volume Ge cluster detectors.

^{161}Pm Levels

E(level)†	Jπ‡	$T_{1/2}$	Comments
0.0#	(5/2$^-$)	1.05 s *15*	$T_{1/2}$: From Adopted Levels.
61.5# *5*	(7/2$^-$)		
141.7# *7*	(9/2$^-$)		
238.4# *8*	(11/2$^-$)		
356.7# *9*	(13/2$^-$)		
965.9 *9*	(13/2$^+$)	0.89 μs *6*	$T_{1/2}$: weighted average of values deduced from 61.5γ(t), 80.2γ(t), 96.7γ(t), 177γ(t), 118.2γ(t), 609.2γ(t) and 727.5γ(t) (2015YoZX). configuration: K^π=13/2$^+$, π5/2[532]⊗ν^2(1/2[521],7/2[633]).

† From a least-squares fit to Eγ.

‡ From 2015YoZX, based on the observed band structure and proposed configurations.

Band(A): K^π=5/2$^-$, π5/2[532] band.

γ(^{161}Pm)

E_γ†	E_i(level)	J_i^π	E_f	J_f^π
61.5 *5*	61.5	(7/2$^-$)	0.0	(5/2$^-$)
80.2 *5*	141.7	(9/2$^-$)	61.5	(7/2$^-$)
96.7 *5*	238.4	(11/2$^-$)	141.7	(9/2$^-$)
118.2 *5*	356.7	(13/2$^-$)	238.4	(11/2$^-$)
177 *1*	238.4	(11/2$^-$)	61.5	(7/2$^-$)
609.2 *5*	965.9	(13/2$^+$)	356.7	(13/2$^-$)
727.5 *5*	965.9	(13/2$^+$)	238.4	(11/2$^-$)

† From 2015YoZX. Uncertainties in Eγ were estimated by the evaluator.

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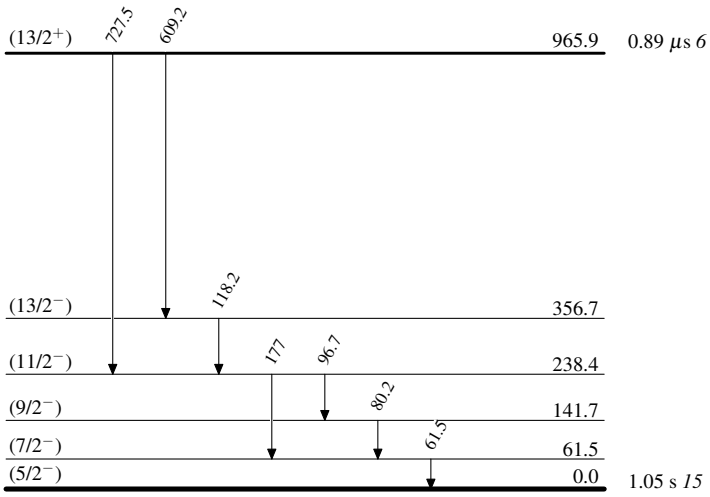
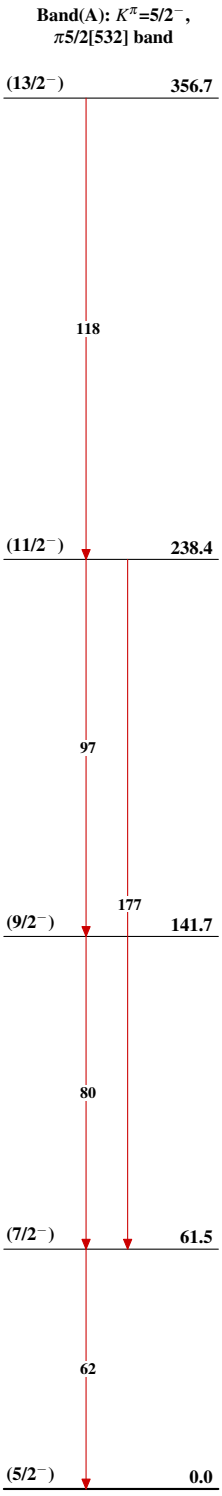
Decay Scheme

%IT=100.0



$^{161}_{61}Pm_{100}$

^{161}Pm IT decay 2015YoZX



$^{161}_{61}Pm_{100}$