^{81}Kr IT decay

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 199,271 (2025)	1-Sep-2024

Parent: ^{81}Kr: E=190.53 *4*; $J^{\pi}=1/2^-$; $T_{1/2}$=13.10 s *2*; %IT decay=99.9975 *4*
^{81}Kr-%IT decay: from measured ε branching=2.5×10^{-3}% *4* for ^{81}Kr (13 s).

^{81}Kr Levels

E(level)†	J^{π}†	$T_{1/2}$†
0	$7/2^+$	2.13×10^5 y *+16−26*
190.53 *4*	$1/2^-$	13.10 s *2*

† From Adopted Levels.

$\gamma(^{81}Kr)$

E_γ‡	I_γ@	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	α†	$I_{(\gamma+ce)}$@	Comments
190.44 *7*	67.7 *3*	190.53	$1/2^-$	0	$7/2^+$	E3	0.479 *7*	100	ce(K)/(γ+ce)=0.2694 *29*; ce(L)/(γ+ce)=0.0460 *7*; ce(M)/(γ+ce)=0.00749 *11* ce(N)/(γ+ce)=0.000665 *10* α(K)=0.398 *6*; α(L)=0.0680 *10*; α(M)=0.01108 *16* α(N)=0.000983 *14* I_γ: from I(γ+ce)=100 and α. Mult.: α(K)exp/(α(L+...)exp+α(M)exp)=4.7 *1* (2005Ka46, 2005Ka39), 4.53 *3* from measured β and ce spectra (1975Va24), 5.16 *30* (1956Do52), 3.6 *5* (1969Ha03). α(exp)=0.54 *7* (1956Do52). α(K)exp=0.50 *7* (2005Ka46, 2005Ka39).

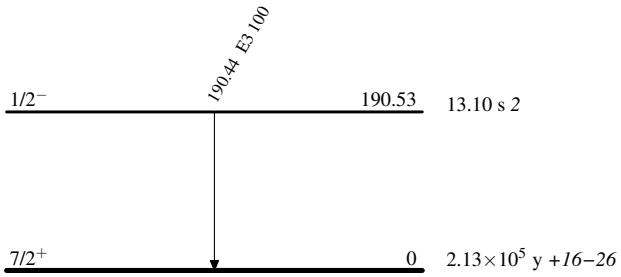
† Additional information 1.
‡ From Adopted Gammas.
# From α(exp).
@ For absolute intensity per 100 decays, multiply by .999975 *4*.

^{81}Kr IT decay

Decay Scheme

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

%IT=99.9975 *4*



$^{81}_{36}Kr_{45}$