^{9}Be(^{238}U,Fγ)   **2021Wi05**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 178, 41 (2021).	12-Nov-2021

2021Wi05: ^{238}U beam at E=345 MeV/nucleon provided by the RIBF accelerator complex at RIKEN facility. Fission fragments were separated and analyzed by BigRIPS separator, transported to focal plane of ZeroDegree spectrometer and finally implanted in an Advanced Implantation Detector Array (AIDA) surrounded by the EUroball RIKEN Cluster Array (EURICA) of 84 HGe crystals arranged in 12 clusters. Particle identification was achieved by ΔE-tof-Bρ method. Measured Eγ, Iγ, (^{64}V)γ-coin, $\gamma\gamma$-coin, and isomer half-life.

^{64}V Levels

E(level)	T$_{1/2}$	Comments
0.0		
82.0 *3*	571 ns *58*	%IT=100
		T$_{1/2}$: mean lifetime τ=824 ns *84* from 82.0γ(t).

$\gamma(^{64}$V)

B(E2) values are in e^{2}b^2 units, whereas 2021Wi05 list in e^{2}fm^4 units.

E$_\gamma$[†]	E$_i$(level)	E$_f$	Mult.	α[‡]	Comments
82.0 *3*	82.0	0.0	[E2]	0.820 *17*	B(E2)(W.u.)=9.7 *11* (2021Wi05)
					Mult.: E2 multipolarity is assigned by 2021Wi05, based on Weisskopf estimates for transition probabilities of various multipolarities. Authors mention that M1 admixture is not ruled out. But it is not clear how E1 or E1 with small M2 admixture is ruled out.

[†] From 2021Wi05.
[‡] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Level Scheme

82.0 [E2]

                                                    82.0   571 ns *58*

                                                    0.0

${}^{64}_{23}$V$_{41}$

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