^{238}U(p,X) 2011Ri07,2010Ku25

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113, 2391 (2012)	1-Sep-2012

^{115}Ru produced in 25-MeV proton-induced fission of ^{238}U followed by mass separation at IGISOL-JYFLTRAP facility. The γ rays were detected with two HPGe detectors, one Ge detector of LOAX type for low-energy γ rays and x rays, a 2 mm thick plastic scintillator for β particles. Measured Eγ, Iγ, $\gamma\gamma$, $\beta\gamma$ coin, half-lives from decay curves.
2011Ri07 provide a detailed level scheme of ^{115}Ru to ^{115}Rh.

^{115}Ru Levels

E(level)	J$^\pi$[†]	T$_{1/2}$	Comments
0	(3/2$^+$)	318 ms *19*	J$^\pi$: from 2011Ri07. 2010Ku25 had proposed (1/2$^+$). T$_{1/2}$: from decay curves for 292γ (from decay of ^{115}Ru to ^{115}Rh) (2010Ku25). Weighted average of 318 ms *29* and 343 ms *28* measured in this work and 270 ms *38* in authors' previous work 2010Ku01.
61.7	(5/2$^+$)		J$^\pi$: from 2011Ri07. 2010Ku25 had proposed (3/2$^+$). Possible member of ν3/2[431] oblate configuration.
61.7+x	(9/2$^-$)	76 ms *6*	J$^\pi$: from 2011Ri07. 2010Ku25 had proposed (7/2$^-$). E(level): x ≈ 20 keV (2010Ku25). T$_{1/2}$: from the decay curve for 61.7γ (2010Ku25).

[†] From assignments made in 2011Ri07.

γ(^{115}Ru)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
x	61.7+x	(9/2$^-$)	61.7	(5/2$^+$)	[M2]	
61.7	61.7	(5/2$^+$)	0	(3/2$^+$)	M1+E2	α(K)exp=2.7 *6* (2010Ku25) E$_\gamma$: this γ is singles γ only, not in β-gated γ spectrum. This γ is correlated with 19.2-keV K$_\alpha$ x ray of Ru (2010Ku25).

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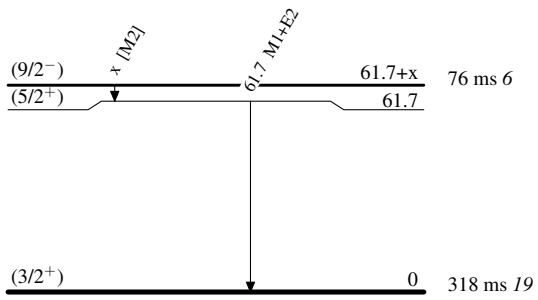
Level Scheme



$^{115}_{44}Ru_{71}$