

$^{92}\text{Y}$  IT decay **2009Fo05**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Parent:  $^{92}\text{Y}$ :  $E=0.0+x$ ;  $T_{1/2}=4.2\text{ }\mu\text{s}+8-6$ ; %IT decay=100.0

$^{92}\text{Y}$  produced using the  $^9\text{Be}(^{238}\text{U},\text{X})$  reaction.  $^{238}\text{U}$  beam produced at  $E=8.00\text{ MeV/nucleon}$  by the K500 and K1200 cyclotrons at the National Superconducting Laboratory at Michigan State University. Reaction products were separated using the A1900 fragment separator and detected using two parallel plate avalanche counters, a Si  $\Delta E$  detector, four Si detectors, and a plastic scintillator. Measurements of the time-of-flight,  $B\rho$  and total kinetic energy were used to determine the atomic number, mass number and charge state of reaction products.  $\gamma$ 's were detected with one HPGe detector. Half-lives were measured using the time difference between implantation events and HPGe events, a technique which was not suitable for measuring half-lives of less than 500 ns.

Measured particle spectra,  $E\gamma$ ,  $I\gamma$ , (particle)- $\gamma$  coincidence and half-lives of isomeric states. Deduced isomer.

Authors identified isomer with half-life of  $4.2\text{ }\mu\text{s}+8-6$ , but no level scheme was proposed.

 $^{92}\text{Y}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0	$2^-$		$J^\pi$ : from Adopted Levels.
0.0+x		$4.2\text{ }\mu\text{s}+8-6$	$T_{1/2}$ : from time correlations between implanted $^{92}\text{Y}$ nuclei and $\gamma$ -ray events.

 $\gamma(^{92}\text{Y})$ 

$I\gamma$  normalization: listed  $\gamma$ -ray intensity is per 100 fragments.

$E_\gamma$	$I_\gamma^{\dagger\ddagger}$	$E_i(\text{level})$
$^{x315.0\text{ }7}$	63 13	
$^{x492.0\text{ }7}$	78 16	

$^\dagger$  Photons per 100 fragments.

$^\ddagger$  Absolute intensity per 100 decays.

$^x$   $\gamma$  ray not placed in level scheme.