^{9}Be(^{71}Br,^{70}Brγ) 2014Ni09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal, E. A. Mccutchan	NDS 136, 1 (2016)	1-Jul-2016

2014Ni09: ^{71}Br beam from fragmentation of 150 MeV/nucleon ^{78}Kr beam by ^{9}Be target, followed by separation using A1900 fragment separator at NSCL-MSU facility. Measured Eγ, Iγ, $T_{1/2}$ by RDDS technique using the TRIple plunger device (TRIPLEX) placed at the target position of S800 spectrograph. Calibration of distances was done using known lifetime of 4.2 ps *2* for first 2^+ state in ^{62}Zn, which was strongly populated in the experiment. Gamma rays were detected gated on recoil particles using SeGA array of 15 segmented HPGe detectors.

^{70}Br Levels

E(level)†	J$^{\pi}$#	$T_{1/2}$‡	Comments
0	0^+		
934	2^+	2.74 ps *40*	
1337	(3^+)	22 ps *10*	
1658	(5^+)	374 ps *83*	$T_{1/2}$: from lineshape using forward angle data.

† From Eγ.
‡ From Recoil-distance Doppler Shift (RDDS) method (2014Ni09).
# From the Adopted Levels.

γ(^{70}Br)

E$_\gamma$†	I$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
321	11.9 *17*	1658	(5^+)	1337	(3^+)
403	23.6 *26*	1337	(3^+)	934	2^+
934	100	934	2^+	0	0^+

† From 2014Ni09.

^{9}Be(^{71}Br,^{70}Brγ) 2014Ni09

Level Scheme

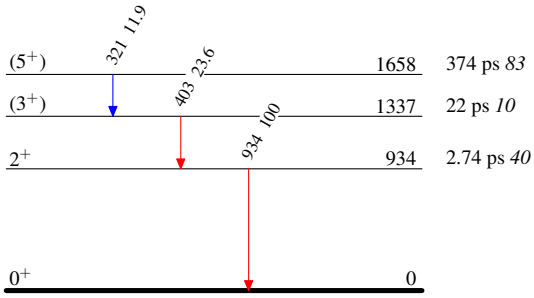
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{70}_{35}Br_{35}$