^{9}Be(^{32}Mg,2pnγ) 2007RoZY,2005Be60,2003Ya05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 113, 909 (2012)	1-Jan-2012

Other: 2006FaZX.

2007RoZY,2006FaZX: ^{29}Ne was produced from ^{48}Ca primary beam fragmentation (E=140 MeV/A) followed by 2pn knockout of ^{32}Mg secondary beam on ^{9}Be (inclusive cross section 0.25 *3* mb (2007RoZY)); Detector: Segmented HPGe array SeGA; Reported measured Eγ of 472 and 626 keV γ-rays, level scheme. The 472γ of ^{29}Ne (2006FaZX) is not reported in 2007RoZY.

2005Be60: ^{29}Ne was produced from the double step fragmentation of the ^{36}S stable beam: secondary beams of ^{27}Na, ^{28}Na, ^{29}Mg, ^{30}Mg of energy between 54 to 65A MeV, on carbon-sandwiched plastic scintillator; 74 BaF_2 detector array along with 4 HPGe detectors; Reported Eγ=680 keV *60*.

2003Ya05,2004Ya10: ^{40}Ar primary beam (E=94 MeV/nucleon) on ^{181}Ta, ^{29}Ne secondary beam on ^{1}H, 68 NaI(Tl) scintillator detectors; Reported 450 and 580 keV γ-rays.

The decay scheme and all data are from 2007RoZY.

^{29}Ne Levels

E(level)	J$^{\pi}$[†]	Comments
0.0	3/2^{+}	J$^{\pi}$: From systematics. Its intruder configuration predicted to be 100% 2p2h by MCSM.
232 *6*	(1/2^{+},3/2^{-})	J$^{\pi}$: The MCSM predicts negative-parity 1p1h 3/2^{-} state at 420-keV and a 2p2h state of 1/2^{+} at 540-keV.
622 *4*	1/2^{+},7/2^{+}	J$^{\pi}$: From MCSM calculation with 2p2h "K=1/2 band" of levels at 540-keV (1/2^{+}) and 850-keV (7/2^{+}).
931 *8*	5/2^{-},7/2^{+}	

[†] From 2007RoZY, based on comparison of the experimental level energy with the predicted level energy by MCSM.

γ(^{29}Ne)

E$_{\gamma}$	I$_{\gamma}$	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Comments
232 *6*	37 *14*	232	(1/2^{+},3/2^{-})	0.0	3/2^{+}	
622 *4*	100	622	1/2^{+},7/2^{+}	0.0	3/2^{+}	Eγ: Others: 680 keV *60* (2005Be60) and 626 keV (2006FaZX).
931 *8*	38 *11*	931	5/2^{-},7/2^{+}	0.0	3/2^{+}	The 931γ feeds g.s. and is placed from 931-keV level, based on the fact that the S(n)(^{29}Ne)=960 *140*.

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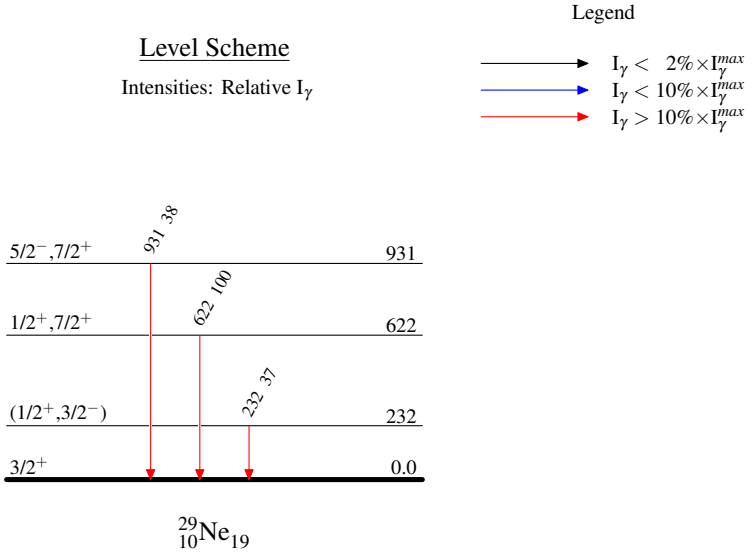
Level Scheme

Intensities: Relative I_γ



$^{29}_{10}Ne_{19}$