^{9}Be(^{83}As,^{82}Geγ) 2016Sh07

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. K. Tuli, E. Browne	NDS 157, 260 (2019)	1-Mar-2019

Includes ^{9}Be(^{83}Ge,^{82}Geγ).

Based on 2016Sh07 in XUNDL compiled by B. Singh (McMaster), March 1, 2016.

2016Sh07: secondary radioactive ion beams (RIBs) of ^{82}Ge, ^{83}As and other neutron-rich isotopes in the vicinity of ^{78}Ni were produced in ^{9}Be(^{238}U,X), E(^{238}U)=345 MeV/nucleon primary fragmentation reaction at RIBF-RIKEN facility.

The fragment products were separated by tof-Bρ-ΔE technique using the BigRIPS separator at RIKEN, optimized for transmission of ^{79}Cu. The secondary target was 1.89 g/cm^2 thick ^{9}Be placed at the eighth focal plane of the BigRIPS separator; typical midtarget energies were ≈250 MeV/nucleon. The reaction products from the secondary reaction were analyzed by tof-Bρ-ΔE method using the ZeroDegree spectrometer optimized for transmission of ^{78}Ni. Measured Eγ, Iγ, particle spectra, (particle)γ- and $\gamma\gamma$-coin spectra, Doppler-shift corrected γ spectra using DALI2 array of 186 NaI(Tl) detectors covering angles of ≈18°−148° with respect to the beam direction. Coincidence timing window between the particles and γ detection was 10 ns.

^{82}Ge Levels

E(level)[†]	J$^\pi$[‡]
0	0$^+$
1354 *20*	(2$^+$)
2288 *24*	(4$^+$)

[†] From Eγ data.

[‡] As given by 2016Sh07.

γ(^{82}Ge)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
[x]688 *11*	8 *1*				
934 *14*	50 *5*	2288	(4$^+$)	1354	(2$^+$)
1354 *20*	100 *10*	1354	(2$^+$)	0	0$^+$

[x] γ ray not placed in level scheme.

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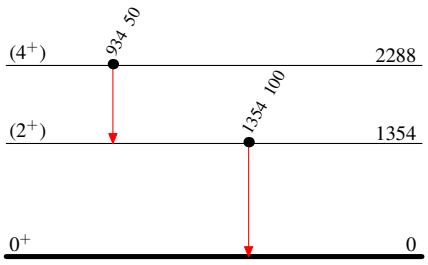
Level Scheme

Intensities: Relative I_γ



$^{82}_{32}Ge_{50}$