

${}^9\text{Be}({}^{68}\text{Se}, 2n\gamma)$ 2011Ob02

Type	Author	History Citation	Literature Cutoff Date
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Additional information 1.

${}^{68}\text{Se}$ beam was produced by fragmentation of a ${}^{78}\text{Kr}$ beam at energy of 140 MeV/nucleon on a 329 mg/cm² ${}^9\text{Be}$ target. It impinged on a 376 mg/cm² ${}^9\text{Be}$ target, located inside the SeGA spectrometer, with a mid-target energy of 78 MeV/nucleon. The reaction products were analyzed by the S800 spectrograph (MSU). Measured: E_γ , $T_{1/2}$.

 ${}^{66}\text{Se}$ Levels

E(level)	J^π	Comments
0	0^+	E(level), J^π : calculations using D1S Gogny interactions and shell-model approach using the JUN45 interactions predict oblate-deformed shape.
929 7	(2^+)	E(level): the Coulomb energy difference of -28 keV 7 was deduced from the excitation energies of the 2^+ states in ${}^{66}\text{Se}$ and ${}^{66}\text{Ge}$.

 $\gamma({}^{66}\text{Se})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
^x 273 5 929 7	929	(2^+)	0	0^+	E_γ : FWHM=25 keV was observed. The uncertainty in energy results from the quadratic sum of a 6-keV uncertainty from the choice of the β -velocity for Doppler correction due to low statistics, corresponding to a β uncertainty of 0.005c, and a 4-keV systematics uncertainty on the transition-energy determination. The latter uncertainty has been obtained from the comparison of extracted energies and known values for a set of transitions in well-known nuclei produced by fragmentation with high statistics in this experiment.

^x γ ray not placed in level scheme.

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Level Scheme

