$^{2}H(^{82}Ge,p)$ 2007Th15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

2007Th15, 2005Th03 (also 2008CiZZ,2007Jo09,2005Ci07,2005JoZZ,2005Th12,2004Th12): E(^{82}Ge)=327 MeV, produced through proton induced fission of UC_x target. Target was 430 μg/cm^2 CD_2. Measured Ep, $\sigma(\theta)$ using large-area silicon detector array, SIDAR, consisting of six MSL-type YY1 wedges, each with sixteen annular strips (FWHM≈300 keV). Protons measured in coincidence with beamlike recoils using an ionization chamber located downstream of the target. DWBA analysis.

Measured reaction Q value=1470 *20*, uncertainty is statistical; systematic uncertainty=70 keV.

^{83}Ge Levels

Included in the comments are the asymptotic normalization coefficients (ANC) C^2_{lj} which are given by $C^2_{lj}=S_{lj}b^2_{lj}$ where b^2_{lj} are model-dependent, single-particle ANCs.

E(level)	J^π	L[†]	S_{lj}	Comments
0	$(5/2)^+$	2	0.48 *14*	C^2_{lj}=4.0 fm^{-1} *10*. J^π: $3/2^+$,$5/2^+$ from L=2; $5/2^+$ is supported by the systematics of ground states of even Z and N=51 isotones.
280 *20*	$1/2^+$	0	0.50 *15*	J^π: from L=0. C^2_{lj}=25 fm^{-1} *6*.

[†] From comparison of differential cross sections with DWBA calculations.