^{64}Zn(t,α) 1967Ba14

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 196,17 (2024)	30-Sep-2023

1967Ba14: E=13 MeV triton beam was produced from the Aldermaston tandem Van-de-Graaff generator. Target was about 250 μg/cm^2 self-supporting ^{64}Zn (>99% enriched). Reaction products were momentum-analyzed with a broad-range multi-angle magnetic spectrograph (FWHM=20 keV). Measured σ(E$_\alpha$,θ). Deduced levels, J, π, L-transfers, spectroscopic factors from DWBA analysis.

^{63}Cu Levels

E(level)†	J$^\pi$‡	L#	S#	E(level)†	J$^\pi$‡	L#	S#	E(level)†	J$^\pi$‡	L#	S#
0	3/2$^-$	1	1.65	2750 *15*				3617 *15*			
669 *10*	1/2$^-$	1	0.55	2775 *15*				3683 *15*	5/2$^+$	2	1.01
964 *10*	5/2$^-$	3	0.92	2836 *15*	7/2$^-$	3	0.35	3779 *15*	5/2$^+$	2	0.92
1331 *10*	7/2$^-$	3	1.61	2864 *15*				3818 *15*			
1414 *10*	5/2$^-$	3	0.44	3043 *15*	7/2$^-$	3	0.04	3895 *15*	3/2$^+$	2	1.29
1551 *10*	3/2$^-$	1	0.04	3078 *15*				3920 *15*			
1866 *10*	7/2$^-$	3	3.31	3117 *15*				4043 *15*			
2019 *10*	1/2$^-$	1	0.02	3143 *15*				4117 *15*	1/2$^+$	0	0.87
2089 *10*	7/2$^-$	3	0.63	3209 *15*	3/2$^+$	2	0.13	4230 *15*	7/2$^-$	3	0.68
2207 *10*				3229 *15*				4292 *15*	3/2$^-$	1	0.25
2338 *10*	3/2$^+$	2	0.08	3303 *15*	3/2$^+$	2	0.34	4371 *15*	7/2$^-$	3	0.28
2407 *10*	7/2$^-$	3	0.07	3389 *15*				4440 *15*	1/2$^+$	0	1.10
2507 *10*	9/2$^+$	4	0.43	3460 *15*	3/2$^+$	2	0.52	4510 *15*	7/2$^-$	3	0.61
2546 *10*				3477 *15*				4581 *15*			
2673 *10*	7/2$^-$	3	0.42	3583 *15*	5/2$^+$	2	1.01	4650 *15*			

† From 1967Ba14.
‡ Assumed for the extraction of spectroscopic factors.
# From DWBA analysis of measured $\sigma(\theta)$ in 1967Ba14. C^{2}S values are normalized to ΣC^{2}S(f7/2)=8.0.