^{167}Er(p,t) 1975St08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 194,460 (2024)	31-Oct-2022

$J^\pi(^{167}\text{Er g.s.})=7/2^+$.

1975St08: E(p)=18 MeV. Measured σ(E,θ) at 15 angles from 6° to 70°. Target was 91% enriched and 40 μg/cm^2 thick evaporated on a 50 μg/cm^2 thick carbon foil. Outgoing tritons were analyzed by Enge split-pole magnetic spectrograph, with subsequent recording of particle tracks on photographic emulsion plates at McMaster University FN tandem Van de Graaff accelerator. FWHM≈10 keV. DWBA analysis of $\sigma(\theta)$ data.

1973Oo01: E(p)=19 MeV. Measured Q value using Enge magnetic spectrograph at the Williams Laboratory Tandem Van de Graaff Accelerator of the University of Minnesota.

^{165}Er Levels

E(level)	J^π	L	dσ/dΩ (μb/sr)[†]	Comments
0	$5/2^-$			J^π: from the Adopted Levels.
47	$5/2^+$[‡]		4	dσ/dΩ=4 μb/sr at 42.5°.
63	$7/2^+$	0	61	J^π: from L(p,t)=0 from $7/2^+$ target (1975St08). dσ/dΩ=12 μb/sr at 42.5°.
98	$9/2^+$[‡]		12	dσ/dΩ=7 μb/sr at 42.5°.
168	$11/2^+$[‡]		5	dσ/dΩ=2 μb/sr at 42.5°.
238	$13/2^+$[‡]		2	dσ/dΩ=1 μb/sr at 42.5°.
296?			<2	dσ/dΩ<2 μb/sr at 42.5°.
372	$15/2^+$[‡]		1	dσ/dΩ=2 μb/sr at 42.5°.
465	$7/2^+$	0	184	J^π: from L(p,t)=0 from $7/2^+$ target (1975St08). dσ/dΩ=37 μb/sr at 42.5°.
581			11	dσ/dΩ=7 μb/sr at 42.5°.
607			11	dσ/dΩ=7 μb/sr at 42.5°.
730			9	dσ/dΩ=3 μb/sr at 42.5°.

[†] At 25°.
[‡] Taken by 1975St08 from (α,3nγ) work of 1970Hj02.