^{121}Sb(p,t) 2007Gu30

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli	NDS 110,2945 (2009)	1-Dec-2008

Additional information 1.

$J^\pi(^{121}\text{Sb g.s. target})=5/2^+$.

E=21 MeV beam provided by Tandem accelerator at Technical University of Munich. Enriched target. Charged particles were analyzed with Munich Q3D magnetic spectrograph and detected in a focal plane detector consisting of an array of single-wire proportional counters followed by a plastic scintillator for particle identification by ΔE-E technique. Measured $\sigma(\theta)$ at 11 angles from 10° to 65°. DWBA analysis. FWHM=8 keV. Systematic uncertainties are ≈15% in integrated cross sections. Comparisons with quasiparticle-phonon model calculations. See also 1999GuZW (unpublished) from same authors.

^{119}Sb Levels

E(level)	J^π	L	σ_{int} (μb)†	E(level)	J^π	L	σ_{int} (μb)†
0	$5/2^+$	0	2371 *17*	2282 *3*	$(1/2 \text{ to } 11/2)^-$	3	19 *2*
271 *3*	$(3/2 \text{ to } 13/2)^+$	4	5.0 *9*	2294 *3*	$(1/2 \text{ to } 9/2)^+$	2	3.1 *4*
644 *3*	$(1/2 \text{ to } 9/2)^+$	2	26 *2*	2322 *3*	$(7/2,9/2)^+$	2+4+6	33 *2*
700 *3*	$(1/2 \text{ to } 9/2)^+$	2	8.8 *12*	2339 *3*	$(1/2 \text{ to } 11/2)^-$	3	11 *1*
1048 *3*	$(1/2 \text{ to } 9/2)^+$	2	149 *5*	2380 *3*	$(7/2,9/2)^+$	2+4+6	22 *1*
1213 *3*	$(1/2 \text{ to } 9/2)^+$	2	159 *5*	2403 *3*	$(1/2 \text{ to } 11/2)^-$	3	23 *1*
1250 *3*	$(1/2 \text{ to } 9/2)^+$	2	29 *2*	2412 *3*	$(9/2,11/2)^-$	3+5+7	11 *1*
1334 *3*	$(1/2 \text{ to } 9/2)^+$	2	44 *3*	2419 *3*	$(7/2 \text{ to } 17/2)^+$	6	2.4 *4*
1366 *3*	$(5/2 \text{ to } 15/2)^-$	5	29 *2*	2448 *3*	$5/2^+$	0	13 *1*
1413 *3*	$(1/2 \text{ to } 11/2)^-$	3	3.8 *8*	2475 *3*	$(9/2,11/2)^-$	3+5+7	8.2 *7*
1469 *3*	$(1/2 \text{ to } 9/2)^+$	2	28 *2*	2490 *3*	$(3/2 \text{ to } 13/2)^+$	4	5.2 *6*
1646 *3*	$5/2^+$	0	25 *1*	2514 *3*	$(3/2,5/2,7/2)^-$	1	17 *1*
1662 *3*	$(1/2 \text{ to } 9/2)^+$	2	3.5 *5*	2527 *3*	$5/2^+$	0	33 *2*
1675 *3*	$(3/2 \text{ to } 13/2)^+$	4	0.8 *2*	2539 *3*	$(1/2 \text{ to } 9/2)^+$	2	23 *1*
1727 *3*	$(1/2 \text{ to } 9/2)^+$	2	1.7 *4*	2554 *3*	$(1/2 \text{ to } 11/2)^-$	3	20 *1*
1750 *3*	$(1/2 \text{ to } 9/2)^+$	2	41 *2*	2586 *3*	$(9/2,11/2)^-$	3+5+7	13 *1*
1821 *3*	$(1/2 \text{ to } 9/2)^+$	2	3.0 *4*	2622 *3*	$(9/2,11/2)^-$	3+5+7	14 *1*
1875 *3*	$(1/2 \text{ to } 9/2)^+$	2	5.3 *6*	2637 *3*	$(1/2 \text{ to } 9/2)^+$	2	11 *1*
1968 *3*	$(3/2 \text{ to } 13/2)^+$	4	2.0 *4*	2670 *3*	$(9/2,11/2)^-$	3+5+7	15 *1*
2019 *3*	$(3/2 \text{ to } 13/2)^+$	4	2.8 *4*	2687 *3*	$(9/2,11/2)^-$	3+5+7	7.3 *7*
2038 *3*	$(5/2 \text{ to } 15/2)^-$	5	3.4 *5*	2728 *3*	$(1/2 \text{ to } 9/2)^+$	2	11 *1*
2068 *3*	$(3/2 \text{ to } 13/2)^+$	4	27 *1*	2755 *3*	$(3/2 \text{ to } 13/2)^+$	4	6.1 *6*
2094 *3*	$(7/2,9/2)^+$	2+4+6	14 *1*	2777 *3*	$(1/2 \text{ to } 11/2)^-$	3	7.6 *7*
2114 *3*	$(3/2 \text{ to } 13/2)^+$	4	12 *1*	2788 *3*	$(1/2 \text{ to } 11/2)^-$	3	8.2 *7*
2130 *3*	$(1/2 \text{ to } 11/2)^-$	3	53 *2*	2803 *3*	$(9/2,11/2)^-$	3+5+7	23 *1*
2138 *3*	$(7/2 \text{ to } 17/2)^+$	6	3.0 *5*	2815 *3*	$(13/2 \text{ to } 23/2)^-$	9	12 *1*
2162 *3*	$(1/2 \text{ to } 11/2)^-$	3	2.1 *4*	2829 *3*	$(1/2 \text{ to } 11/2)^-$	3	5.2 *6*
2194 *3*	$(7/2,9/2)^+$	2+4+6	40 *2*	2849 *3*	$(5/2 \text{ to } 15/2)^-$	5	23 *1*
2202 *3*	$(7/2 \text{ to } 17/2)^+$	6	11 *1*	2874 *3*	$(1/2 \text{ to } 9/2)^+$	2	7.5 *7*
2232 *3*	$(1/2 \text{ to } 11/2)^-$	3	64 *2*				

† Integrated cross sections.