^{161}Dy(α,^{3}He) 1992An15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 195,1 (2024)	19-Sep-2023

Additional information 1.
Configuration=ν 5/2[642] for the ^{161}Dy g.s..
^{161}Dy(α,^{3}He) at 50 MeV on enriched (95.94%) target with ^{3}He measured in QMG/2 magnetic spectrometer with FWHM from 20 to 30 keV. ^{3}He(θ) shown in plots from 10° to 40°.

^{162}Dy Levels

E(level)[†]	J$^\pi$[‡]	L[#]	dσ/dΩ (μb/sr)[@]	E(level)[†]	J$^\pi$[‡]	L[#]	dσ/dΩ (μb/sr)[@]
0[&]	0$^+$			2351		6,5	11
81[&]	2$^+$	6	8	2381		3	10
266[&]	4$^+$	6	64	2429		4	17
548[&]	6$^+$	6	169	2455			10
922[&]	8$^+$	6	28	2505[e]	(7$^+$)	6,5	18
1363[a]	3$^-$	5(,6)	12	2532		4	22
1488[b]	5$^-$	5(,6)	12	2623[f]	(6$^+$)	6	33
1521[a]	5$^-$	5	14	2647		5	37
1578[c]	4$^+$		44	2697		4(,5)	21
1682[b]	7$^-$	5,6	54	2726		4,5	27
1759[d]	3$^-$	5,6	57	2755[e]	(8$^+$)	6	47
1828[d]	4$^-$	5	14	2785		4,5	27
1990[c]	8$^+$		17	2812		5	24
2085		5,4	19	2847[f]	(7$^+$)	6	35
2260		4	21	2901		5	21
2292		5,6	14	2930[e]	(9$^+$)	6	37

[†] Energies were calibrated with levels of known energy within the ground-state band. Total uncertainties vary from ≈5 keV at 1 MeV for the strongest peaks to ≈25 keV at 3 MeV.
[‡] From the Adopted Values. The values from 1992An15 are in agreement with these, except for the parentheses which the evaluator has included for the levels above 2.5 MeV. For those levels seen only in this reaction, the J^π values are based on the agreement between the measured cross sections and those calculated assuming the listed configuration and rotational-band assignments.
[#] Values are from comparison of the measured and DWBA calculated angular distributions.
[@] Values at 15° and normalized by comparison with elastic angular distributions.
[&] Band(A): K$^\pi$=0$^+$ ground-state band.
[a] Band(B): K$^\pi$=0$^-$ band, Configuration=(ν 5/2[642])-(ν 5/2[523]).
[b] Band(C): K$^\pi$=5$^-$ band, Configuration=(ν 5/2[642])+(ν 5/2[523]).
[c] Band(D): K$^\pi$=0$^+$ band. S band.
[d] Band(E): K$^\pi$=3$^-$ band, Configuration=(ν 5/2[642])+(ν 1/2[521]).
[e] Band(F): K$^\pi$=6$^+$ band, Configuration=(ν 5/2[642])+(ν 7/2[633]).
[f] Band(G): K$^\pi$=1$^+$ band, Configuration=(ν 7/2[633])-(ν 5/2[642]).

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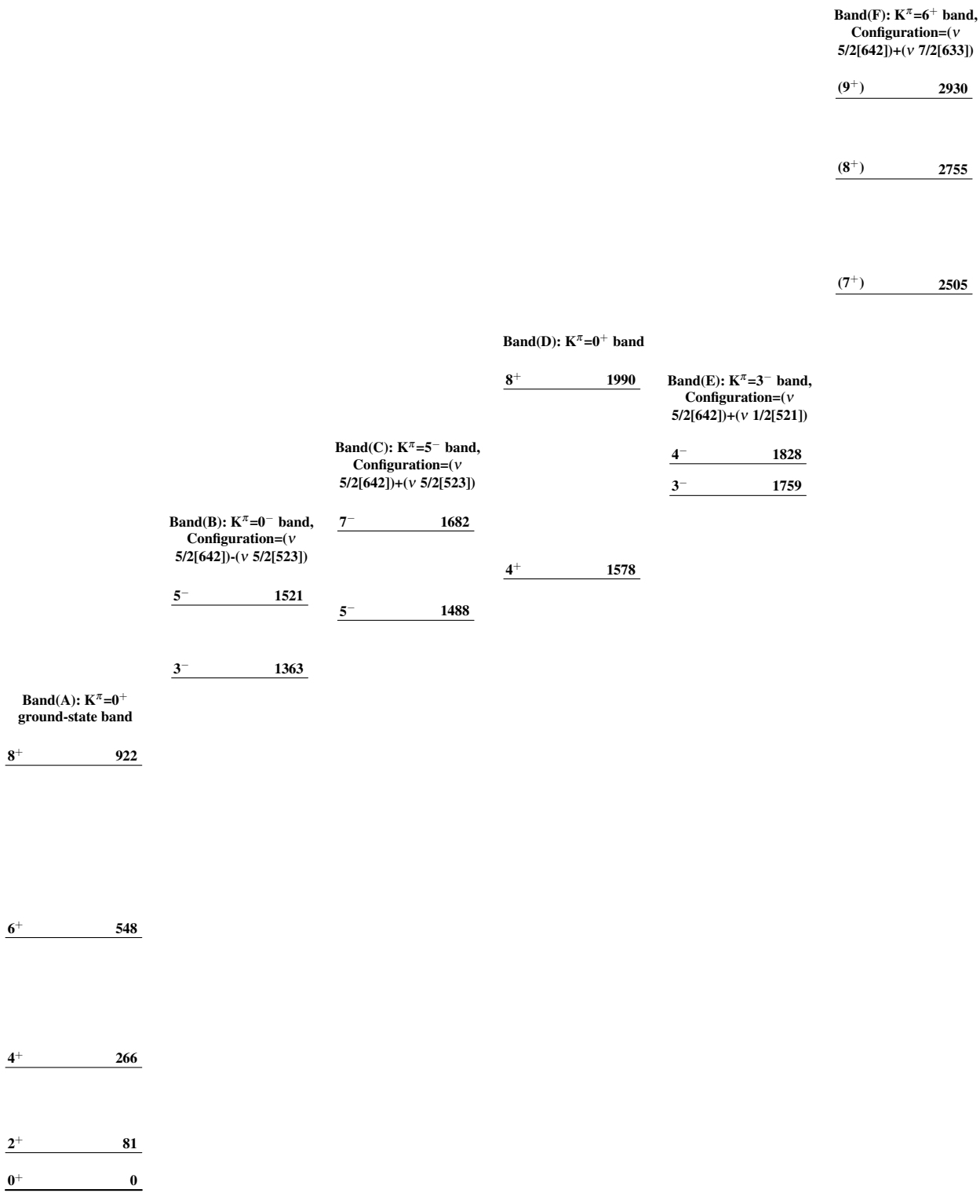

$^{162}_{66}Dy_{96}$

^{161}Dy(α,^{3}He) 1992An15 (continued)

Band(G): $K^{\pi}=1^{+}$ band, Configuration=(ν 7/2[633])-(ν 5/2[642])

(7^{+}) 2847

(6^{+}) 2623

$^{162}_{66}Dy_{96}$