^{150}Nd(^{26}Mg,^{23}Naγ) 2005Ke08,2005Ke11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia[#], A. Chakraborty[##]	NDS 171,1 (2021)	1-Jun-2020

2005Ke08,2005Ke11: ^{26}Mg beam, E=160 MeV, bombarded onto a ^{150}Nd target of thickness 0.4 mg/cm^2, deep-inelastic and multi-nucleon transfer reaction; γ rays were detected using an array of 26 Ge clover detectors, 15 Ge cluster detectors, and a BGO array; measured Eγ, $\gamma\gamma$ coin, deduced level scheme.

^{23}Na Levels

E(level)[†]	J$^\pi$[‡]
0.0	$3/2^+$
440	$5/2^+$
2076	$7/2^+$
2703	$9/2^+$
3678	$3/2^-$
5378	$5/2^+$
5533	$11/2^+$
6236	$(13/2,9/2)^+$

[†] From γ-ray energies.
[‡] As listed in 2005Ke11.

γ(^{23}Na)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
440	440	$5/2^+$	0.0	$3/2^+$
627	2703	$9/2^+$	2076	$7/2^+$
1636	2076	$7/2^+$	440	$5/2^+$
2263	2703	$9/2^+$	440	$5/2^+$
2830	5533	$11/2^+$	2703	$9/2^+$
3238	3678	$3/2^-$	440	$5/2^+$
3533	6236	$(13/2,9/2)^+$	2703	$9/2^+$
4938	5378	$5/2^+$	440	$5/2^+$

Legend

● Coincidence

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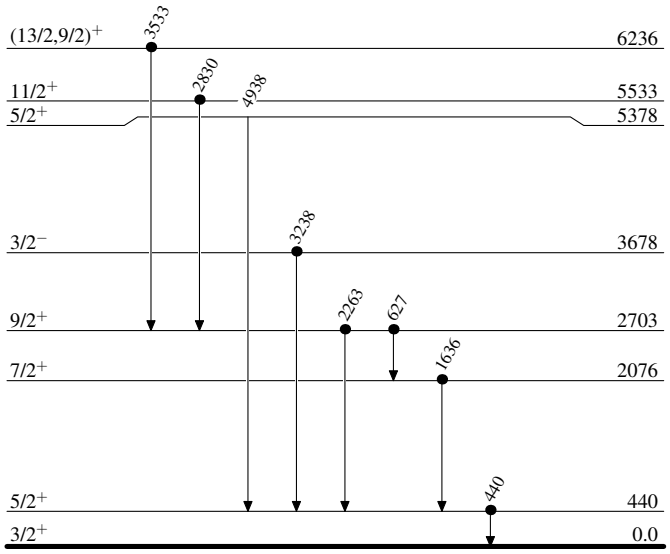
Level Scheme



$^{23}_{11}Na_{12}$