(HI,xnγ) 1994Pa20

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 111, 1093 (2010)	3-Mar-2009

Additional information 1.

1994Pa20,1994Pa23,1995Fo16: E(^{64}Ni)=350 MeV; ^{66}Ni produced by quasi- and deep-inelastic reactions on a thick ^{208}Pb target. Measured Eγ, Iγ, γγ coin, $T_{1/2}$ by delayed coin.

2000Az01: E(^{70}Zn, ^{86}Kr)=65 MeV/A primary beam on a ^{208}Pb target. ^{66}Ni secondary beam. Coulomb excitation. Measured B(E2)↑≈900 (from Fig. 2 in 2000Az01).

2002So03: E(^{70}Zn)=4.6 GeV primary beam on ^{58}Ni target. Secondary beam of ^{66}Ni, ^{68}Ni on ^{58}Ni target. Secondary beam of ^{66}Ni, ^{68}Ni on ^{208}Pb produced Coulomb excitation of ^{66}Ni, ^{68}Ni. Measured Eγ(2^+ to 0^+)=1425 keV. Determined B(E2)↑(0^+ to 2^+).

Others: 1997Is13.

Data are from 1994Pa20, unless otherwise specified.

^{66}Ni Levels

E(level)†	Jπ‡	$T_{1/2}$	Comments
0.0	0^+		
1425.12 *10*	2^+	0.8 ps *2*	$T_{1/2}$: Deduced by evaluators from B(E2)↑=600 *100* (2002So03). Others: 1997Is13, 2002Az01.
2670.8 *4*	(3^+)#		
3185.44 *15*	(4^+)#		
3370.9 *4*	3^-		
3541.34 *18*	(5^-)#		
3599.3 *6*	(6^-)	4.3 ns *4*	$T_{1/2}$: Other value: 5 ns *1* (1997Is13). Jπ: (6^-).
3725.2 *6*			
4070.4 *7*			
4089.4 *6*	7^-		
5174.9 *7*	$(8)^+$		
6579.8 *9*	(10^+)		

† From a least-squares fit to the Eγ data.

‡ From Adopted Levels, unless otherwise specified.

From 1994Pa20. Jπ assignments are based on level systematics and shell model calculations and are given without any supporting experimental data. Hence, the evaluators have considered them to be tentative.

γ(^{66}Ni)

Eγ	Iγ†	E_i(level)	J_i^π	E_f	J_f^π	Comments
58.0 *5*	1.3 *2*	3599.3	(6^-)	3541.34	(5^-)	
354.3 *5*	2.9 *3*	3725.2		3370.9	3^-	
355.9 *1*	69 *3*	3541.34	(5^-)	3185.44	(4^+)	
471.1 *4*	3.4 *5*	4070.4		3599.3	(6^-)	
490.1 *2*	22 *2*	4089.4	7^-	3599.3	(6^-)	
1085.5 *3*	10.7 *12*	5174.9	$(8)^+$	4089.4	7^-	
1245.7 *3*	8.9 *7*	2670.8	(3^+)	1425.12	2^+	
1404.8 *6*	2.3 *4*	6579.8	(10^+)	5174.9	$(8)^+$	
1425.1 *1*	100	1425.12	2^+	0.0	0^+	
1760.3 *1*	82 *3*	3185.44	(4^+)	1425.12	2^+	Other: 1997Is13.
1945.8 *3*	9.0 *8*	3370.9	3^-	1425.12	2^+	

† Relative intensity.

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Level Scheme

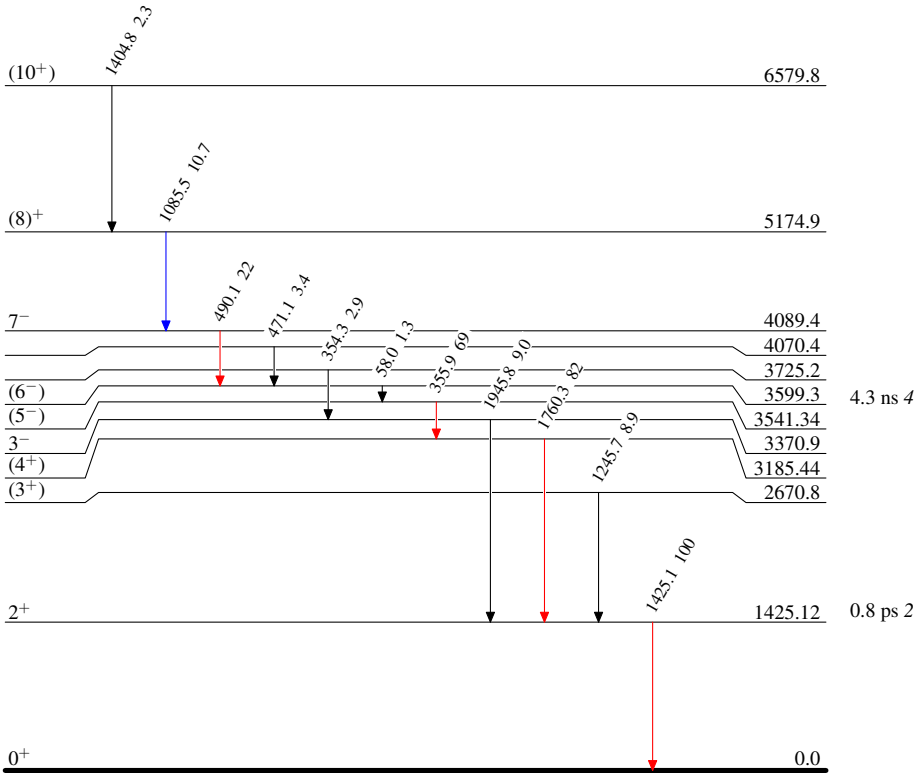
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{66}_{28}Ni_{38}$