(HI,xnγ) 1995Pa30

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 113, 515 (2012)	1-Jan-2012

^{60}Ni(^{58}Ni,3pnγ) E=250 MeV, TASCC facility at Chalk River.
Measured: γ, γγ; 20 Compton-suppressed Ge-Li + 71 BGO inner-ball calorimeter, 3.3×10^8 events recorded.
Previous experiment at Daresbury with polytessa array and recoil separator allowed a unique assignment of γ-ray transitions.

^{114}I Levels

E(level)	Jπ†	$T_{1/2}$	E(level)	Jπ†	E(level)
0.0	1^+	2.1 s *2*	1008+x#	(11^-)	3026+x#
0+x			1236		3462@
103.2	$(2)^-$		1285		3487+x#
131.4	(4)		1362+x#	(12^-)	3592‡
221+x#	(8^-)		1530		3956+x#
265.9	(7)	6.2 s *5*	1595‡	(7^-)	4314@
288			1744+x#	(13^-)	4588‡
419+x#	(9^-)		2032@		5257@
491			2150+x#		5552‡
635			2155‡		6530‡
690+x#	(10^-)		2580+x#		7524‡
745			2692@		8576‡
954			2857‡		

† See 1995Pa30 for suggested assignments.
‡ Band(A): band 1, Configuration=((P,1G7/2)(N,1H11/2)) (π,α)=(-,1).
# Band(B): band 2, Configuration=((π $1g_{9/2}$)(ν $1h_{11/2}$)).
@ Band(C): band (π,α)=(-,0).

γ(^{114}I)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α†
28.2		131.4	(4)	103.2	$(2)^-$	Q	
65		1595	(7^-)	1530			
103.17 *6*	100	103.2	$(2)^-$	0.0	1^+	E1	0.188
110		745		635			
123		2155		2032			
130		3592		3462			
134.47 *16*	100	265.9	(7)	131.4	(4)	M3	17.9
144		635		491			
166		2857		2692			
186		288		103.2	$(2)^-$		
198		419+x	(9^-)	221+x	(8^-)		
203		491		288			
209		954		745			
221		221+x	(8^-)	0+x			
254		745		491			
271		690+x	(10^-)	419+x	(9^-)		
294		1530		1236			
310		1595	(7^-)	1285		D	

Continued on next page (footnotes at end of table)

(HI,xnγ) 1995Pa30 (continued)

$\gamma(^{114}I)$ (continued)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.
318	1008+x	(11^-)	690+x	(10^-)		660	2692		2032		
354	1362+x	(12^-)	1008+x	(11^-)		672	1362+x	(12^-)	690+x	(10^-)	
382	1744+x	(13^-)	1362+x	(12^-)		702	2857		2155		Q
406	2150+x		1744+x	(13^-)		735	3592		2857		Q
430	2580+x		2150+x			736	1744+x	(13^-)	1008+x	(11^-)	
437	2032		1595	(7^-)		770	3462		2692		
446	3026+x		2580+x			788	2150+x		1362+x	(12^-)	
461	3487+x		3026+x			836	2580+x		1744+x	(13^-)	
469	690+x	(10^-)	221+x	(8^-)		852	4314		3462		
469	3956+x		3487+x			875	3026+x		2150+x		
490	1236		745			906	3487+x		2580+x		
502	2032		1530			930	3956+x		3026+x		
538	2692		2155			943	5257		4314		
560	2155		1595	(7^-)	Q	964	5552		4588		
575	1530		954			978	6530		5552		
589	1008+x	(11^-)	419+x	(9^-)		994	7524		6530		
601	1236		635			996	4588		3592		
650	1285		635			1052	8576		7524		

† Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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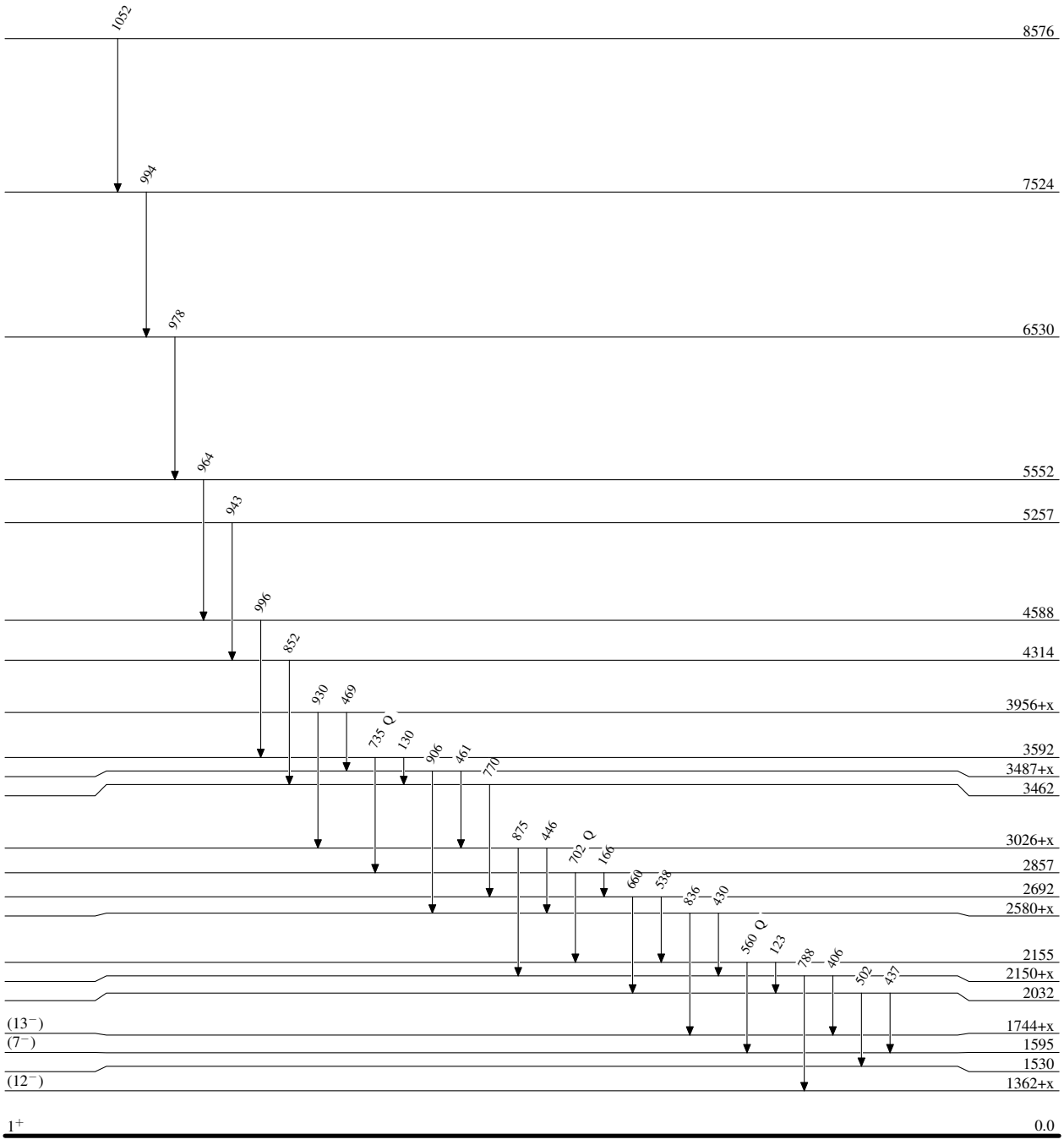
Level Scheme

Intensities: Relative $I_{(\gamma+ce)}$



$^{114}_{53}I_{61}$

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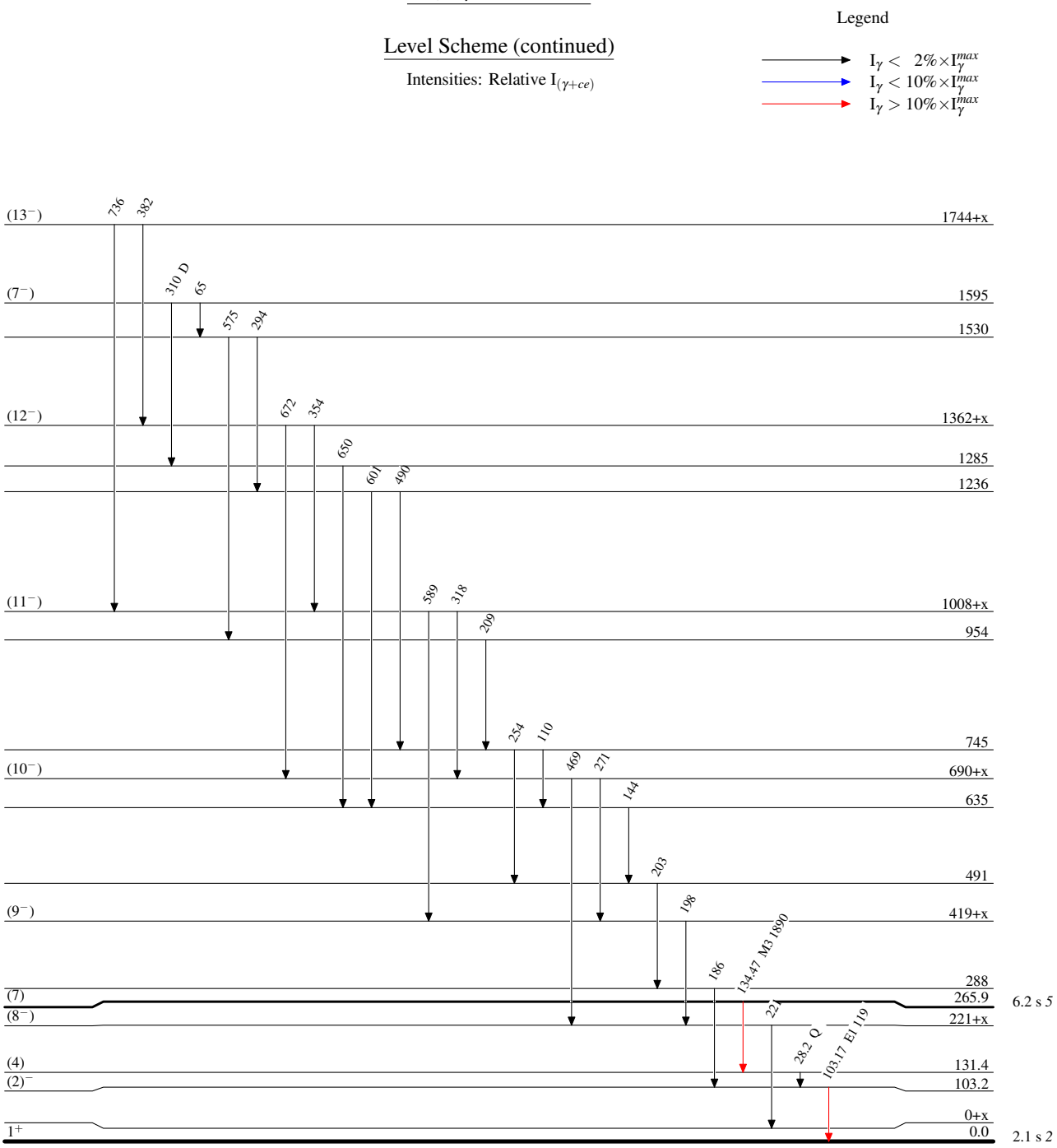
Level Scheme (continued)

Intensities: Relative $I_{(\gamma+ce)}$



$^{114}_{53}I_{61}$

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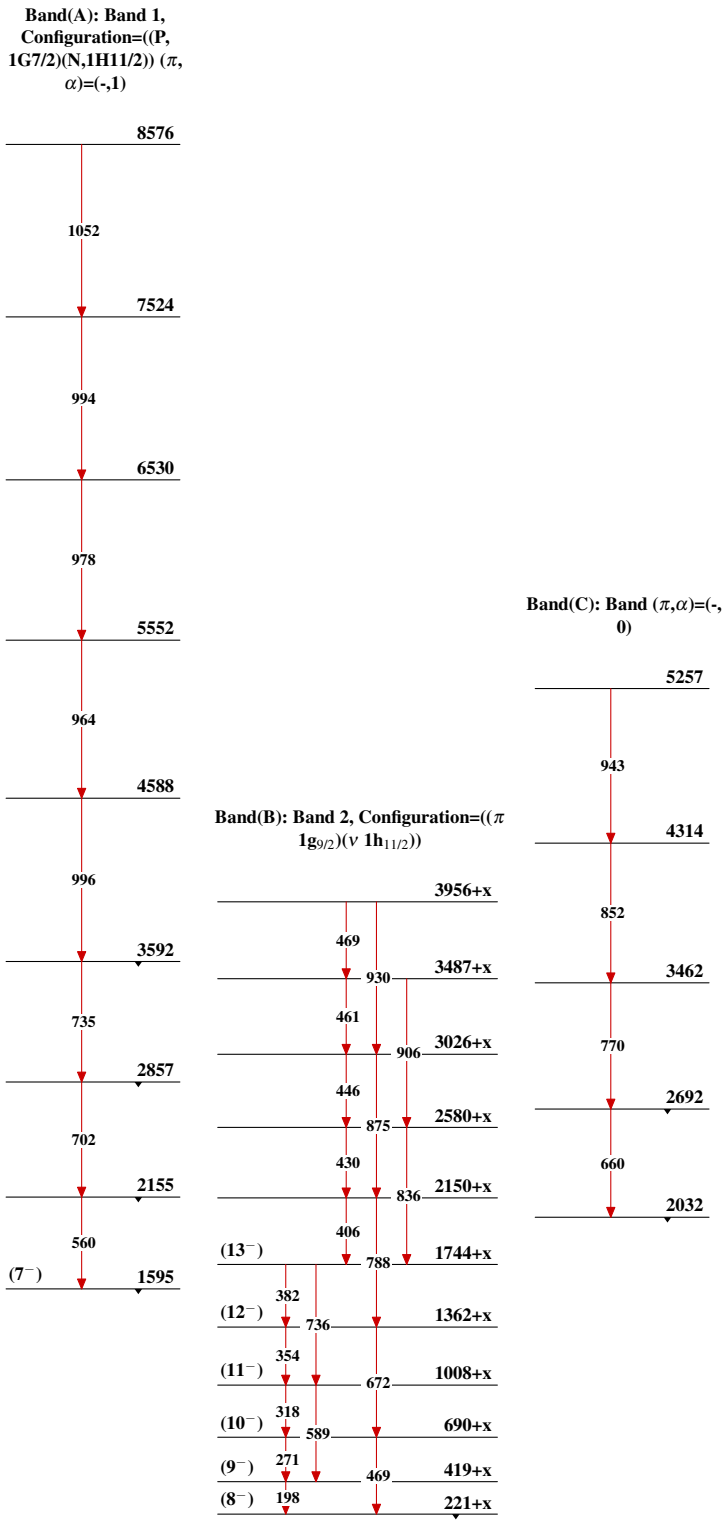

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