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

 $Q(\beta^{-}) = -5.7 \times 10^{3} \text{ syst}; S(n) = 9.7 \times 10^{3} \text{ syst}; S(p) = 1.7 \times 10^{3} \text{ syst}; Q(\alpha) = 2.2 \times 10^{3} \text{ syst}$  2012Wa38 Note: Current evaluation has used the following Q record -5.7E+3 SY9.7E+3 SY1.7E+3 SY2.2E+3 syst 2011AuZZ.  $\Delta Q(\beta^{-})=300, \Delta S(n)=300, \Delta S(p)=300, \Delta Q(\alpha)=300$  (2011AuZZ).

 $^{115}$ Cs decays by delayed-appa emission to  $^{114}$ I. The level population in  $^{114}$ I is not known.  $^{118}$ Cs decays by delayed-alpha emission to  $^{114}$ I. The level population in  $^{114}$ I is not known.

#### <sup>114</sup>I Levels

Cross Reference (XREF) Flags

 $^{114}$ Xe  $\beta^+$  decay  $^{114}$ I IT decay A

В

С (HI,xn $\gamma$ )

E(level)	$J^{\pi}$	$T_{1/2}$	XREF	Comments
0.0	1+	2.1 s 2	ABC	$\%\varepsilon + \%\beta^+ = 100; \ \%\beta^+ p = ?$ $\%\beta^+ p; \ 1978 Ka   7$ give theoretical calc for % delayed protons and $\alpha' s$ .
				$T_{1/2}$ : from 1977Ki11.
				$J^{\pi}$ : log ft=4.8 to the 0 <sup>+</sup> 114 Te.
0+x			С	
103.2	$(2)^{-}$		BC	$J^{\pi}$ : E1 $\gamma$ to (1 <sup>+</sup> ).
131.4	(4)		В	$J^{\pi}$ : Q $\gamma$ to (2) <sup>-</sup> , no $\gamma$ to 1 <sup>+</sup> g.s.
221+x <sup>‡</sup>	(8 <sup>-</sup> )		С	$J^{\pi}$ : from syst of even iodine (114-122).
265.9	(7)	6.2 s 5	BC	$\% \varepsilon + \% \beta^+ = 91 2; \% \Gamma = 9 2 (1997 Au 04)$
				J <sup>**</sup> : M5 $\gamma$ to (4). T. (5) from 19957i77
288			С	1 <sub>1/2</sub> . nom 19932122.
419+x <sup>‡</sup>	(9 <sup>-</sup> )		С	
491			С	
635			C	
690+x+	$(10^{-})$		C	
/45 054			C	
1008 1 1	$(11^{-})$		C C	
1008+X	(11)		c	
1285			c	
1362+x <sup>‡</sup>	$(12^{-})$		С	
1530			С	
1595	(7 <sup>-</sup> )		С	$J^{\pi}$ : based on theoretical calculation (TRS model).
1744+x <sup>‡</sup>	(13 <sup>-</sup> )		С	
2032#			С	
2150+x <sup>‡</sup>			С	
2155			С	
$2580 + x^{4}$			С	
2692#			C	
2857			C	
3026+x+			C	
3462"			C	

# <sup>114</sup>I Levels (continued)

E(level)	XREF	E(level)	XREF	E(level)	XREF
3487+x <sup>‡</sup>	С	4314 <sup>#</sup>	С	5552 <sup>†</sup>	С
3592	С	4588†	С	6530 <sup>†</sup>	С
3956+x <sup>‡</sup>	С	5257 <sup>#</sup>	С	7524	С
				8576†	С

<sup>†</sup> Band(A): band 1, Configuration= $((\pi \ 1g_{7/2})(\nu \ 1h_{11/2}))(\pi,\alpha)=(-,1)$ . <sup>‡</sup> Band(B): band 2, Configuration= $((\pi \ 1g_{9/2})(\nu \ 1h_{11/2}))$ . <sup>#</sup> Band(C): band  $(\pi,\alpha)=(-,0)$ .

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

E <sub>i</sub> (level)	$\mathbf{J}_i^{\pi}$	$E_{\gamma}$	$I_{\gamma}$	$\mathbf{E}_{f}$	$\mathbf{J}_f^\pi$	Mult.	$\alpha^{\dagger}$	Comments
103.2	$(2)^{-}$	103.17.6	100	0.0	1+	E1	0.188	
131.4	(4)	28.2	100	103.2	$(2)^{-}$	0	01100	
221 + x	$(8^{-})$	221		0+x	(-)	×		
265.9	(7)	134.47 16	100	131.4	(4)	M3	17.9	$B(M3)(W_{11})=0.66$
288	(,)	186	100	103.2	$(2)^{-}$	1.10	1112	
419 + x	$(9^{-})$	198		221 + x	$(8^{-})$			
491	(- )	203		288	(0)			
635		144		491				
690+x	$(10^{-})$	271		419+x	$(9^{-})$			
	(	469		221 + x	$(8^{-})$			
745		110		635	(• )			
		254		491				
954		209		745				
1008 + x	$(11^{-})$	318		690 + x	$(10^{-})$			
		589		419+x	(9 <sup>-</sup> )			
1236		490		745	(- )			
		601		635				
1285		650		635				
1362 + x	$(12^{-})$	354		1008 + x	$(11^{-})$			
	· /	672		690+x	$(10^{-})$			
1530		294		1236				
		575		954				
1595	$(7^{-})$	65		1530				
		310		1285		D		
1744+x	$(13^{-})$	382		1362+x	$(12^{-})$			
	· /	736		1008 + x	$(11^{-})$			
2032		437		1595	$(7^{-})^{-}$			
		502		1530				
2150+x		406		1744+x	$(13^{-})$			
		788		1362+x	$(12^{-})$			
2155		123		2032				
		560		1595	$(7^{-})$	Q		
2580+x		430		2150+x				
		836		1744+x	$(13^{-})$			
2692		538		2155				
		660		2032				
2857		166		2692				
		702		2155		Q		
3026+x		446		2580+x				
		875		2150+x				

Continued on next page (footnotes at end of table)

### Adopted Levels, Gammas (continued)

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

E <sub>i</sub> (level)	Eγ	$E_f$	Mult.	E <sub>i</sub> (level)	Eγ	$E_f$	E <sub>i</sub> (level)	Eγ	$E_f$
3462	770	2692		3956+x	469	3487+x	5552	964	4588
3487+x	461	3026+x			930	3026+x	6530	978	5552
	906	2580+x		4314	852	3462	7524	994	6530
3592	130	3462		4588	996	3592	8576	1052	7524
	735	2857	Q	5257	943	4314			

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

### Level Scheme

Intensities: Relative photon branching from each level



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

Level Scheme (continued)

Intensities: Relative photon branching from each level



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



 $^{114}_{53}\mathrm{I}_{61}$