^{56}Fe(^{58}Ni,2pnγ) 1997La06

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 110, 1239 (2009)	1-Feb-2008

^{56}Fe(^{58}Ni,2pn), E=240 MeV. ATLAS facility at Argonne. AYEBALL array. Seven 80% and nine 30% efficient Compton suppressed HPGe spectrometers. The prompt γ measured in coin with residues of the fragment mass analyzer (FMA). Measured DCO.

These data were very preliminary, see the more complete work of 2000St03.

^{111}Te Levels

E(level)	J$^\pi$	Comments
0.0		
x	(11/2$^-$)	E(level): no evidence for transition to g.s. as in ^{109}Te.
539+x	(15/2$^-$)	
1135+x		
1255+x	(19/2$^-$)	
1329+x		
1938+x	(23/2$^-$)	
2561+x		
2700+x	(25/2$^-$)	
2930+x	(27/2$^-$)	
3853+x	(31/2$^-$)	
4572+x	(35/2$^-$)	
4817+x	(35/2$^-$)	
5235+x	(37/2$^-$)	
5792+x	(39/2$^-$)	

γ(^{111}Te)

A cascade consisting of weak transitions at 116, 577, 693, 765, 789, 858, and a doublet near 879 has been observed but not placed in level scheme.

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
539.3 *2*	100 *4*	539+x	(15/2$^-$)	x	(11/2$^-$)	E2	Mult.: DCO=0.98 *9*.
596.0† *3*	18 *2*	1135+x		539+x	(15/2$^-$)		
623.1† *3*	10 *1*	2561+x		1938+x	(23/2$^-$)		
662.8 *2*	22 *2*	5235+x	(37/2$^-$)	4572+x	(35/2$^-$)	(M1+E2)	Mult.: DCO=0.55 *8*.
683.2 *2*	91 *3*	1938+x	(23/2$^-$)	1255+x	(19/2$^-$)	E2	Mult.: DCO=0.96 *9*.
715.5 *2*	88 *4*	1255+x	(19/2$^-$)	539+x	(15/2$^-$)	E2	Mult.: DCO=1.04 *12*.
718.6 *2*	31 *2*	4572+x	(35/2$^-$)	3853+x	(31/2$^-$)	(E2)	Mult.: DCO=1.16 *48*.
762.1 *2*	13 *1*	2700+x	(25/2$^-$)	1938+x	(23/2$^-$)	(M1+E2)	Mult.: DCO=0.70 *24*.
790.0† *4*	14 *2*	1329+x		539+x	(15/2$^-$)		
922.8 *2*	33 *2*	3853+x	(31/2$^-$)	2930+x	(27/2$^-$)	E2	Mult.: DCO=1.19 *16*.
963.6 *2*	16 *1*	4817+x	(35/2$^-$)	3853+x	(31/2$^-$)	(E2)	Mult.: DCO=0.83 *20*.
975.1 *4*	7 *1*	5792+x	(39/2$^-$)	4817+x	(35/2$^-$)	(E2)	Mult.: DCO=0.98 *9*.
992.0 *2*	62 *3*	2930+x	(27/2$^-$)	1938+x	(23/2$^-$)	E2	Mult.: DCO=1.06 *12*.

† Placement of transition in the level scheme is uncertain.

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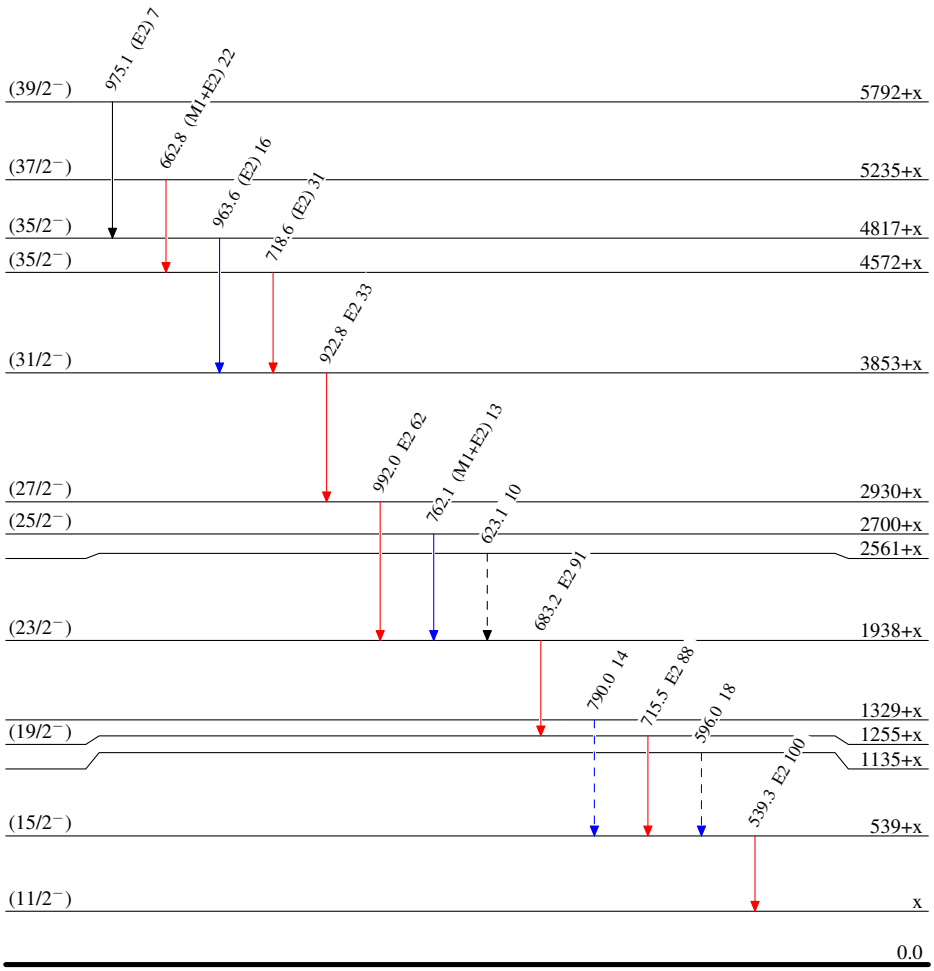
Level Scheme

Intensities: Type not specified

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



$^{111}_{52}Te_{59}$