^{58}Ni(^{58}Ni,2pγ) 2002De26

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

E=210 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$(DCO), γ(lin pol), and lifetimes using 4π spectrometer EUROBALL IV, Cologne plunger device with Si-ball nuclides, and Clover composite detectors.

^{114}Xe Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]
0[#]	0^+		2557.8[@] *4*	7^-	5448.7[@] *8*	15^-
450.10[#] *20*	2^+	14.9 ps *10*	3168.7[@] *5*	9^-	6304.4[@] *8*	17^-
1068.5[#] *3*	4^+	4.3 ps *4*	3303.4[#] *6*	10^+	6846.9[@] *9*	19^-
1623.0[@] *3*	3^-	8.3 ps *21*	3922.0[@] *6*	11^-	7539.7[@] *9*	21^-
1788.5[#] *3*	6^+		4044.1[#] *6*	12^+	8372.5[@] *10*	23^-
1999.7[@] *3*	5^-	19.4 ps *21*	4733.4[@] *7*	13^-		
2552.4[#] *5*	8^+		4813.0[#] *7*	14^+		

[†] From least-squares fit to Eγ's.
[‡] From bands assignments and γ mult.
[#] Band(A): g.s. band.
[@] Band(B): Octupole band based on 3^-.

γ(^{114}Xe)

E$_\gamma$	I$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.	Comments
211.4 *4*	1.9 *1*	1999.7	5^-	1788.5	6^+	E1	DCO=0.70 *7*.
376.7 *2*	25.3 *13*	1999.7	5^-	1623.0	3^-	E2	DCO=1.02 *5*, Pol=+0.38 *13*.
450.1 *2*	100	450.10	2^+	0	0^+	E2	DCO=1.00 *4*, Pol=+0.39 *10*.
542.5 *3*	19.4 *12*	6846.9	19^-	6304.4	17^-		DCO=1.01 *5*.
554.7 *2*	10.0 *8*	1623.0	3^-	1068.5	4^+	E1	DCO=0.64 *5*, Pol=+0.20 *10*. Additional information 1.
558.2 *2*	29.4 *15*	2557.8	7^-	1999.7	5^-		DCO=0.95 *5*, Pol=+0.51 *10*.
610.9 *3*	23.4 *12*	3168.7	9^-	2557.8	7^-		DCO=1.03 *5*, Pol=+0.21 *10*.
618.5 *2*	78 *5*	1068.5	4^+	450.10	2^+	E2	DCO=0.94 *4*, Pol=+0.37 *11*.
692.8 *3*	16.3 *10*	7539.7	21^-	6846.9	19^-		DCO=0.96 *4*.
715.3 *3*	17.4 *10*	5448.7	15^-	4733.4	13^-		DCO=0.94 *5*.
720.1 *2*	49 *3*	1788.5	6^+	1068.5	4^+		DCO=1.01 *4*, Pol=+0.29 *11*. Additional information 2.
740.7 *3*	9.6 *7*	4044.1	12^+	3303.4	10^+		DCO=0.95 *5*.
750.9 *3*	17.4 *12*	3303.4	10^+	2552.4	8^+		DCO=0.99 *5*.
753.2 *4*	11.5 *7*	3922.0	11^-	3168.7	9^-		DCO=1.00 *4*.
763.9 *3*	31.1 *19*	2552.4	8^+	1788.5	6^+		DCO=1.00 *4*.
768.9 *2*	10.1 *7*	4813.0	14^+	4044.1	12^+		DCO=1.06 *6*.
769.2 *3*	3.9 *4*	2557.8	7^-	1788.5	6^+		DCO=0.57 *7*.
811.4 *3*	15.6 *10*	4733.4	13^-	3922.0	11^-		DCO=1.03 *6*.
832.8 *3*	3.6 *3*	8372.5	23^-	7539.7	21^-		
855.7 *3*	16.7 *11*	6304.4	17^-	5448.7	15^-		DCO=0.96 *5*.
1172.8 *3*	16.7 *9*	1623.0	3^-	450.10	2^+	E1	DCO=0.60 *4*, Pol=+0.37 *15*.
1549.1 *5*	0.5 *1*	1999.7	5^-	450.10	2^+	E3	Mult.: γ to 2^+ from 5^-.
1623 *1*	0.3 *1*	1623.0	3^-	0	0^+	E3	Mult.: γ to 0^+ from 3^-.

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Level Scheme

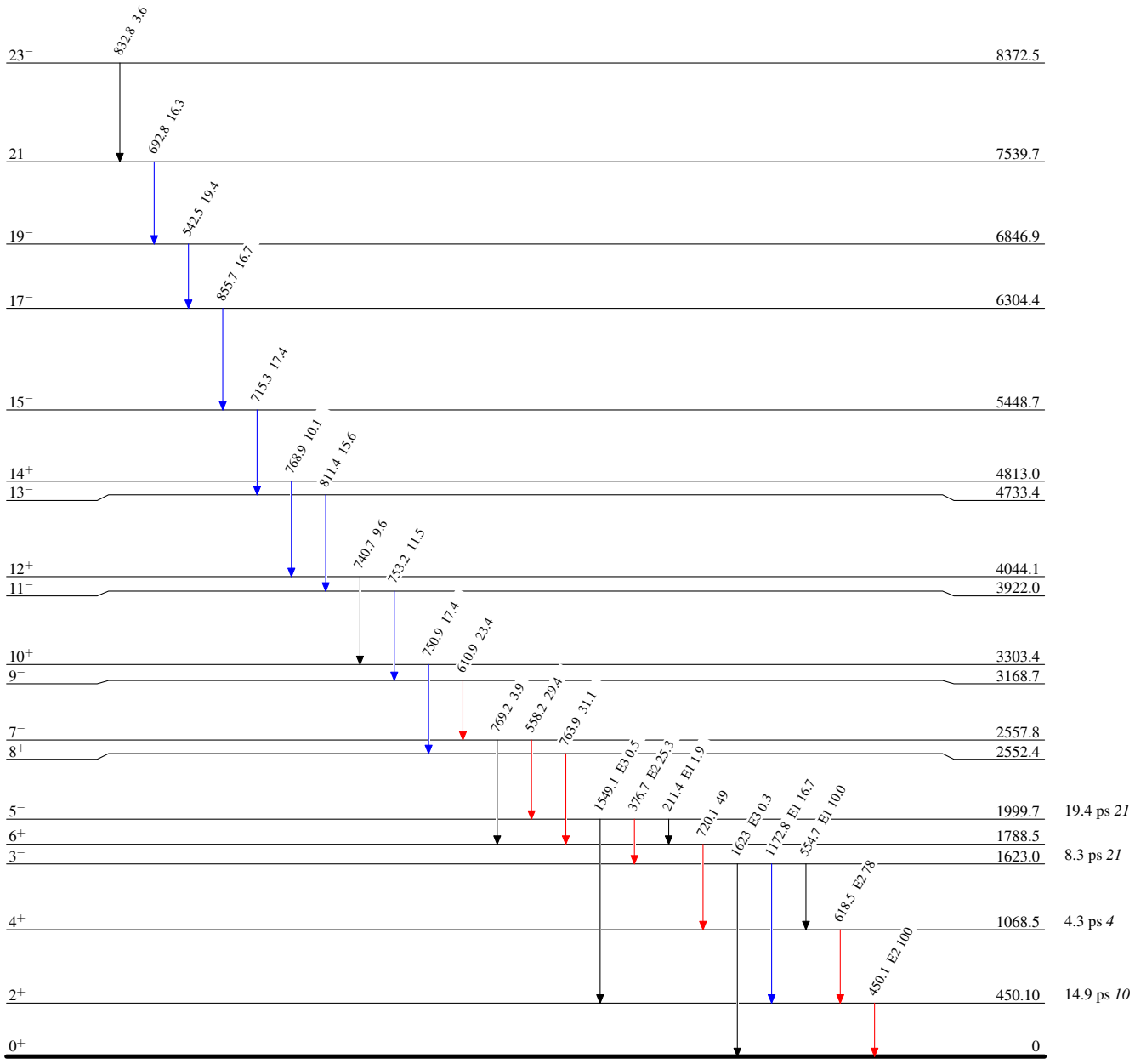
Intensities: Relative I_γ

Legend

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

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

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



$^{114}_{54}Xe_{60}$

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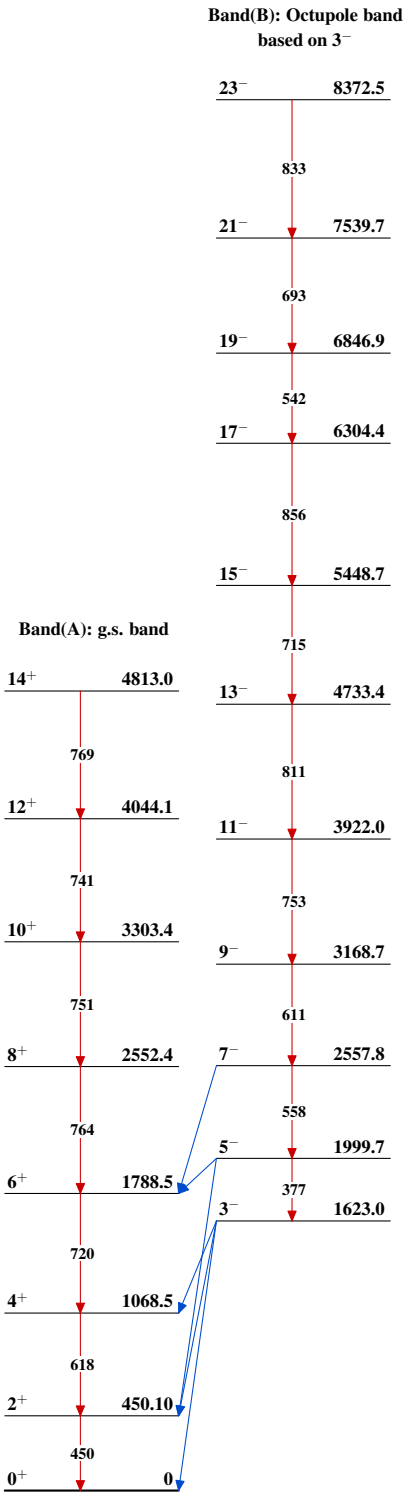

$^{114}_{54}Xe_{60}$