^{176}Yb(^{37}Cl,Xγ) 2001Ba39

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 2081 (2009)	1-Mar-2009

E=170 MeV. Measured Eγ, Iγ, using the Euroball III array consisting of 25 large-volume coaxial Ge detectors, 26 four element clover detectors, and 14 seven-element "cluster" detectors.

^{103}Tc Levels

E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†
0‡	5/2+	362@	(7/2−)	1236#	(15/2+)	3017b	(23/2+,25/2+)
46#	7/2+	557#	(11/2+)	1344‡	(17/2+)	3371b	(25/2+,27/2+)
83a	3/2−	595&	(9/2−)	1467@	(15/2−)	3750b	(27/2+,29/2+)
139‡	9/2+	663‡	(13/2+)	1834&	(17/2−)	4069b	(29/2+,31/2+)
178&	5/2−	848@	(11/2−)	2153‡	(21/2+)		
259a	5/2−	1158&	(13/2−)	2192@	(19/2−)		

† J^π without parenthesis taken from pick up reactions, others from proposed band structure and systematics with other odd Tc nuclei.
‡ Band(A): g.s. band, α=+1/2.
# Band(a): g.s. band, α=−1/2.
@ Band(B): π5/2[303] band, α=−1/2.
& Band(b): π5/2[303] band, α=+1/2.
a Band(C): π3/2[301] band.
b Band(D): Band based on (23/2+,25/2+). g.s. band crossed by another band.

γ(^{103}Tc)

No ΔE given by the authors.

Eγ	Ei(level)	J_i^π	Ef	J_f^π	Eγ	Ei(level)	J_i^π	Ef	J_f^π
46	46	7/2+	0	5/2+	366	1834	(17/2−)	1467	(15/2−)
83	83	3/2−	0	5/2+	379	3750	(27/2+,29/2+)	3371	(25/2+,27/2+)
93	139	9/2+	46	7/2+	417	595	(9/2−)	178	5/2−
94	178	5/2−	83	3/2−	418	557	(11/2+)	139	9/2+
103	362	(7/2−)	259	5/2−	486	848	(11/2−)	362	(7/2−)
106	663	(13/2+)	557	(11/2+)	524	663	(13/2+)	139	9/2+
176	259	5/2−	83	3/2−	563	1158	(13/2−)	595	(9/2−)
185	362	(7/2−)	178	5/2−	619	1467	(15/2−)	848	(11/2−)
232	595	(9/2−)	362	(7/2−)	676	1834	(17/2−)	1158	(13/2−)
255	848	(11/2−)	595	(9/2−)	679	1236	(15/2+)	557	(11/2+)
309	1158	(13/2−)	848	(11/2−)	681	1344	(17/2+)	663	(13/2+)
310	1467	(15/2−)	1158	(13/2−)	725	2192	(19/2−)	1467	(15/2−)
319	4069	(29/2+,31/2+)	3750	(27/2+,29/2+)	809	2153	(21/2+)	1344	(17/2+)
354	3371	(25/2+,27/2+)	3017	(23/2+,25/2+)	864	3017	(23/2+,25/2+)	2153	(21/2+)

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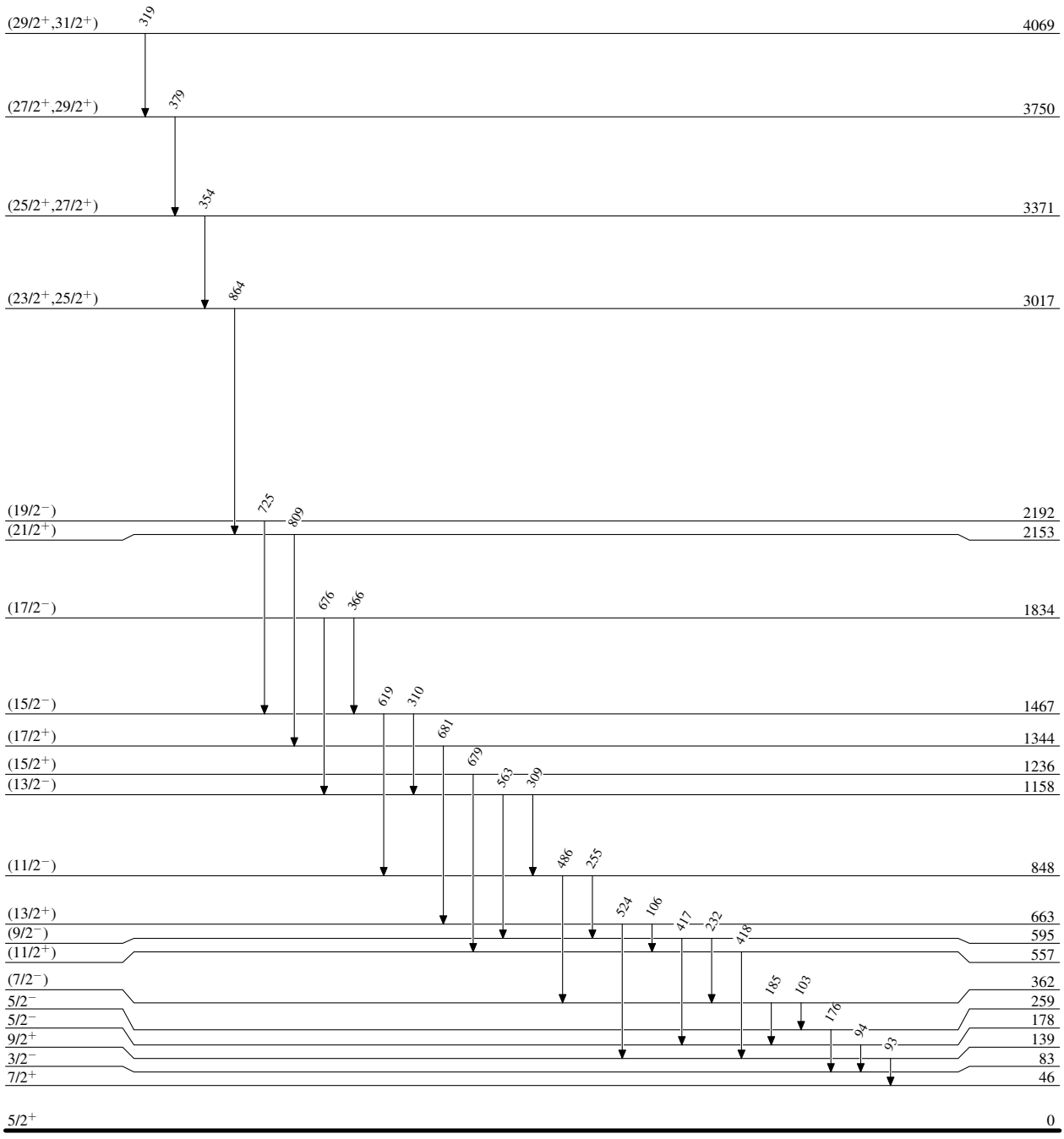
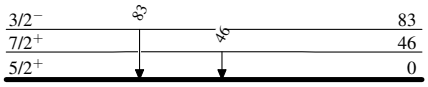
Level Scheme



$^{103}_{43}Tc_{60}$

^{176}Yb(^{37}Cl,Xγ) 2001Ba39

Level Scheme (continued)



$^{103}_{43}Tc_{60}$

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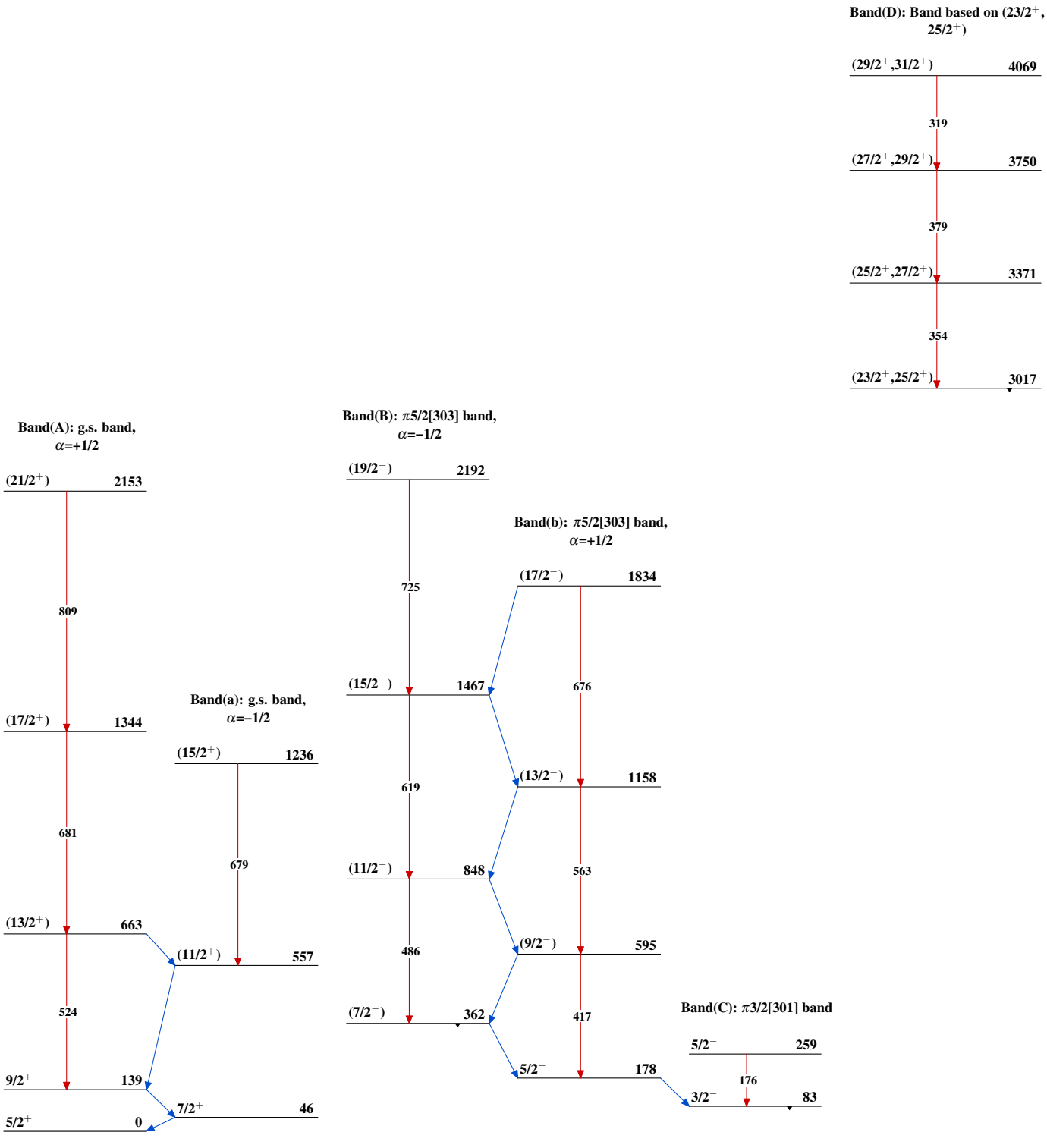

$^{103}_{43}Tc_{60}$