

⁴⁰Ca(²⁰Ne,2pn γ) **1995Sp01**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. R. Bhat	NDS 85, 415 (1998)	24-Sep-1998

E(²⁰Ne)= 68 MeV; measured E γ , I γ , with a Doppler recoil filter detector (rfd). Experimental details not given by authors.

⁵⁷Ni Levels

E(level) [†]	J π [‡]	E(level) [†]	J π [‡]	E(level) [†]	J π [‡]	E(level) [†]	J π [‡]
0.0	3/2 ⁻	3363.7 8	7/2 ⁻	4502.9 6		5663.3 8	
768.8 5	5/2 ⁻	3701.7 7	(5/2) ⁻	4711.1 7	(11/2) ⁻	6420.9 7	
2443.3 5	5/2 ⁻	3713.6 5	(⁺)	4941.1 6		7454.5 7	
2577.3 5	7/2 ⁻	3865.6 6	11/2 ⁻	5320.5 6	15/2 ⁻	8345.7 8	
3230.1 7	7/2 ⁻	4027.0 8		5515.0 6			

[†] From a least-squares fit to E γ data.

[‡] From Adopted Levels; supporting arguments from this data set not given by authors.

γ (⁵⁷Ni)

E γ [†]	E _i (level)	J π _i	E _f	J π _f	E γ [†]	E _i (level)	J π _i	E _f	J π _f
194.7 5	5515.0		5320.5	15/2 ⁻	1160.3 5	5663.3		4502.9	
229.8 5	4941.1		4711.1	(11/2) ⁻	1227.0 5	4941.1		3713.6	(⁺)
379.4 5	5320.5	15/2 ⁻	4941.1		1270.1 5	3713.6	(⁺)	2443.3	5/2 ⁻
438.5 5	4941.1		4502.9		1287.7 5	3865.6	11/2 ⁻	2577.3	7/2 ⁻
475.9 5	4502.9		4027.0		1455.1 5	5320.5	15/2 ⁻	3865.6	11/2 ⁻
483.5 5	3713.6	(⁺)	3230.1	7/2 ⁻	1649.4 5	5515.0		3865.6	11/2 ⁻
573.8 5	5515.0		4941.1		1924.7 5	8345.7		6420.9	
636.8 5	4502.9		3865.6	11/2 ⁻	1926.5 5	4502.9		2577.3	7/2 ⁻
722 [‡] 1	5663.3		4941.1		1939.5 5	7454.5		5515.0	
768.8 5	768.8	5/2 ⁻	0.0	3/2 ⁻	2133 [‡] 1	4711.1	(11/2) ⁻	2577.3	7/2 ⁻
845.4 5	4711.1	(11/2) ⁻	3865.6	11/2 ⁻	2134 [‡] 1	7454.5		5320.5	15/2 ⁻
891.2 5	8345.7		7454.5		2443.0 5	2443.3	5/2 ⁻	0.0	3/2 ⁻
906.0 5	6420.9		5515.0		2461 [‡] 1	3230.1	7/2 ⁻	768.8	5/2 ⁻
1033.5 5	7454.5		6420.9		2577.5 5	2577.3	7/2 ⁻	0.0	3/2 ⁻
1075.6 5	4941.1		3865.6	11/2 ⁻	2594 [‡] 1	3363.7	7/2 ⁻	768.8	5/2 ⁻
1100.3 5	6420.9		5320.5	15/2 ⁻	2934 [‡] 1	3701.7	(5/2) ⁻	768.8	5/2 ⁻
1124.3 5	3701.7	(5/2) ⁻	2577.3	7/2 ⁻	3230 [‡] 1	3230.1	7/2 ⁻	0.0	3/2 ⁻
1136.0 5	3713.6	(⁺)	2577.3	7/2 ⁻	3257 [‡] 1	4027.0		768.8	5/2 ⁻
1139.2 5	4502.9		3363.7	7/2 ⁻					

[†] Uncertainty not given by authors; assumed to be 0.5-1.0 keV by the evaluator.

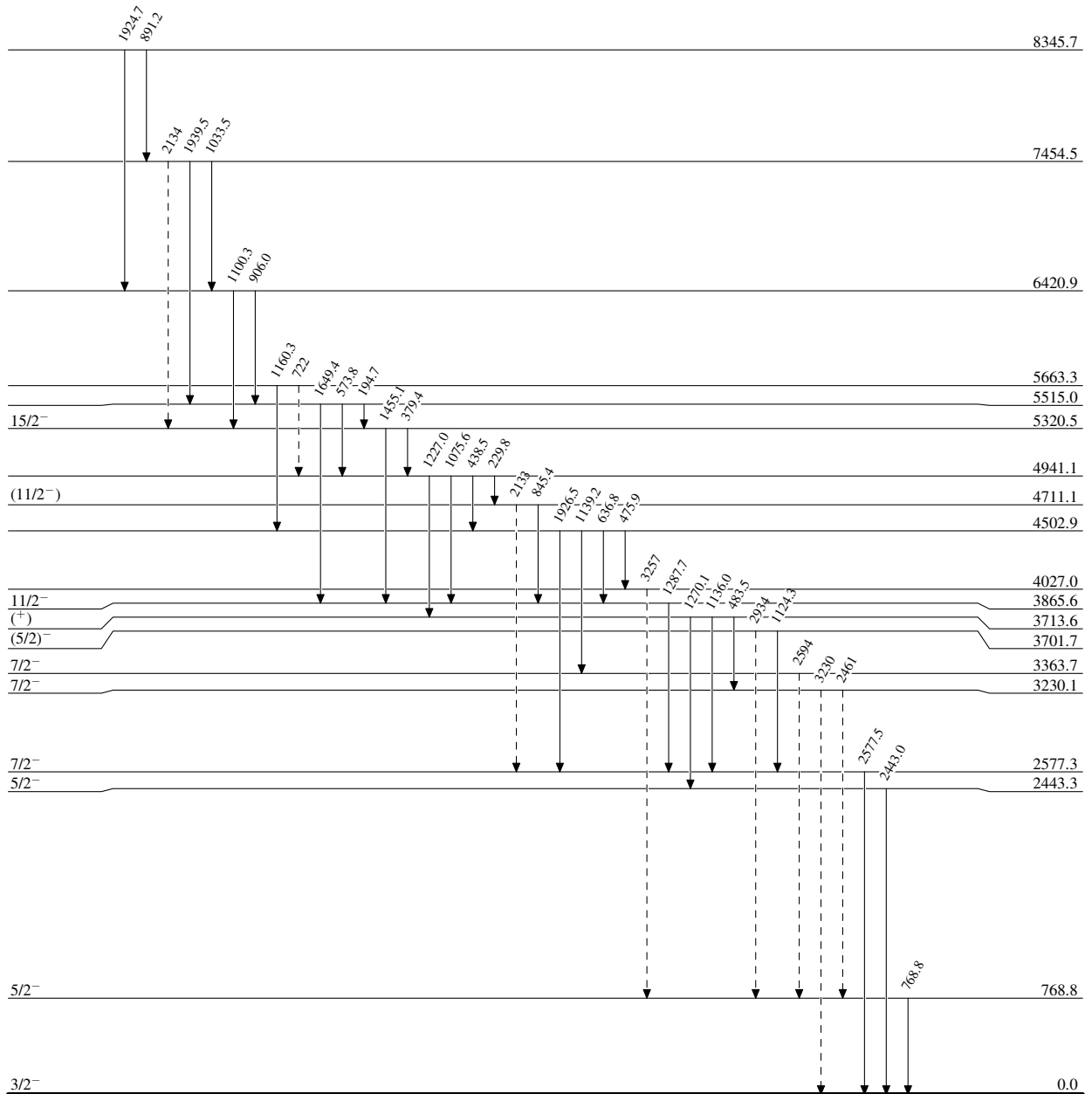
[‡] Placement of transition in the level scheme is uncertain.

$^{40}\text{Ca}(^{20}\text{Ne}, 2\text{pn}\gamma)$ 1995Sp01

Legend

Level Scheme

-----► γ Decay (Uncertain)



$^{57}_{28}\text{Ni}_{29}$