

^{45}Ca $Z = 20$ $N = 25$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 388.375 (0.000) MeV

Qbeta- = 0.260 (0.001) MeV

		Energy T	J+	J-	J-other	T1/2	

45CA	1			0.000	7/2-	1	162.61 D 9
45CA	2			0.174	5/2-	2	0.40 NS 4
45CA	3			1.435	3/2-	3	1.10 PS +22-16
45CA	4			1.554	(11/2-)	4	2.1 PS GT
45CA	5					5	
45CA	6				1.558	6	
45CA	7	1.880	3/2+		1.584	7	0.05 PS 3
45CA	8					8	
45CA	9			1.900	3/2-	9	1.12 PS +11-9
45CA	10					10	

45CA	11				1.973	5/2-,7/2-	11
45CA	12			2.249	1/2-	12	0.43 PS +7-6
45CA	13					13	4.7 NS 11
45CA	14	2.392	1/2+		2.354	1/2+,3/2+	14
45CA	15					15	0.19 PS 4
45CA	16				2.523	(3/2,5/2,	16
45CA	17				2.599	17	
45CA	18				2.675	(3/2,5/2)	18
45CA	19				2.771	1/2+,3/2+	19
45CA	20			2.842	3/2-	20	22 FS 6

45CA	21			2.878	(15/2-)	21	2.1 PS GT
45CA	22					22	
45CA	23			2.977	5/2-	23	42 FS 19
45CA	24					24	
45CA	25				3.024	1/2,3/2,5	25
45CA	26				3.035	26	
45CA	27			3.241	3/2-	27	36 FS 12
45CA	28					28	
45CA	29				3.278	29	
45CA	30				3.295	(3/2+,5/2	30
45CA	31					31	

45CA	31				3.322	5/2-,7/2-	31
45CA	32			3.418	1/2-	32	35 FS 7
45CA	33					33	
45CA	34				3.442	1/2-,3/2-	34
45CA	35				3.463	35	
45CA	36				3.491	3/2-,5/2+	36
45CA	36				3.556	36	

45CA 37		3.560	(1/2+)						37
45CA 38							3.654	1/2,3/2,5	38
45CA 39							3.675		39
45CA 40							3.705	1/2,3/2,5	40

45CA 41							3.753		41
45CA 42							3.783	1/2-,3/2-	42 26 FS LT
45CA 43					3.838	(1/2)-			43 15 FS LT
45CA 44							3.942		44
45CA 45							3.993	5/2-,7/2-	45
45CA 46							4.048		46
45CA 47							4.115		47
45CA 48							4.177	5/2-,7/2-	48
45CA 49							4.258		49
45CA 50							4.286		50

45CA 51							4.312	(1/2-,3/2	51
45CA 52							4.388		52
45CA 53							4.421		53
45CA 54							4.468	1/2-,3/2-	54
45CA 55							4.511	(1/2-,3/2	55
45CA 56							4.559		56
45CA 57					4.616	1/2-			57 12 FS LT
45CA 58							4.695	(5/2-,7/2	58
45CA 59							4.750	3/2+,5/2+	59
45CA 60		4.762	1/2+						60

45CA 61							4.810	1/2-,3/2-	61
45CA 62							4.837	3/2+,5/2+	62
45CA 63							4.885	(5/2-,7/2	63
45CA 64		4.919	1/2+						64
45CA 65		4.981	1/2+						65
45CA 66					5.000	(1/2)-			66 9.7 FS LT
45CA 67		5.047	1/2+						67
45CA 68							5.079		68
45CA 69		5.128	(1/2+)						69
45CA 70							5.164		70

45CA 71		5.201	1/2+						71
45CA 72							5.237	1/2-,3/2-	72
45CA 73							5.285		73
45CA 74							5.309		74
45CA 75							5.324	3/2+,5/2+	75
45CA 76		5.352	1/2+						76
45CA 77							5.373	1/2-,3/2-	77
45CA 78							5.390	7/2+,9/2+	78
45CA 79							5.417	3/2+,5/2+	79
45CA 80							5.440	1/2-,3/2-	80

45CA 81		5.479	1/2+						81

45CA 82				5.521	7/2+,9/2+	82
45CA 83				5.551		83
45CA 84				5.569		84
45CA 85				5.598		85
45CA 86				5.629		86
45CA 87				5.687		87
45CA 88				5.716		88
45CA 89				5.742	(3/2+,5/2	89
45CA 90				5.764	5/2-,7/2-	90

45CA 91				5.792		91
45CA 92		5.818		1/2+		92
45CA 93				5.846	1/2-,3/2-	93
45CA 94				5.892	3/2+,5/2+	94
45CA 95				5.915		95
45CA 96				5.948		96
45CA 97				5.967		97
45CA 98				5.990		98
45CA 99				6.018		99
45CA 100				6.051		100

45CA 101				6.077		101
45CA 102				6.106		102
45CA 103				6.234		103
45CA 104				6.301		104

S-p = 12.320 (0.001) -----
S-n = 7.415 (0.000) -----
S-2p = 23.380 (0.005) -----
S-2n = 18.546 (0.000) -----
S-alpha= 10.170 (0.001) -----

S+p = -8.238 (0.001)
S+n = -10.399 (0.002)
S+2p = -18.703 (0.000)
S+2n = -17.675 (0.002)
S+alpha = -10.177 (0.000)

gap p = 4.081 (0.001)
gap n = -2.984 (0.002)
gap 2p = 4.677 (0.005)
gap 2n = 0.871 (0.002)
gap alpha = -0.007 (0.001)