

$^{72}\text{Ga}$        $Z = 31$        $N = 41$       [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 625.470 ( 0.001) MeV

Qbeta- = 3.998 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
72GA 1			0.000 3-		1 14.10 H 2
72GA 2			0.016 2-		2 39.2 NS 7
72GA 3				0.120 (0+)	3 39.68 MS 13
72GA 4				0.129 1,2	4
72GA 5	0.162	1+			5 0.59 NS 3
72GA 6				0.166 4-,5-	6
72GA 7				0.198 -	7
72GA 8	0.208	1+			8 0.19 NS LT
72GA 9				0.229 3-,4-	9
72GA 10				0.249 3-,4-	10
72GA 11			0.272 4-		11
72GA 12				0.283	12
72GA 13				0.330 3-,4-	13
72GA 14				0.385 -	14
72GA 15				0.393	15
72GA 16				0.400 4-,5-,6-	16
72GA 17				0.408	17
72GA 18				0.513	18
72GA 19				0.515	19
72GA 20				0.544 -	20
72GA 21				0.555 4-,5-,6-	21
72GA 22				0.564	22
72GA 23				0.601 2+,3+	23
72GA 24				0.620 -	24
72GA 25				0.636 3-,4-	25
72GA 26				0.650	26
72GA 27	0.684	0+ T0 3+			27
72GA 28				0.709 4-,5-,6-	28
72GA 29				0.738	29
72GA 30				0.741 (3,4)	30
72GA 31				0.760 -	31
72GA 32				0.799	32
72GA 33				0.828 -	33
72GA 34				0.850 -	34
72GA 35	0.857	0+ T0 3+			35
72GA 36				0.870	36
72GA 37				0.877	37

72GA 38						0.894		3-,4-		38
72GA 39						0.900		+		39
72GA 40						0.919				40
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72GA 41						0.945				41
72GA 42		0.979		0+ T0						42
72GA 43						1.003				43
72GA 44						1.022				44
72GA 45						1.033				45
72GA 46						1.051				46
72GA 47		1.060		0+ T0						47
72GA 48						1.077				48
72GA 49						1.084		-		49
72GA 50						1.116				50
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72GA 51						1.130		-		51
72GA 52						1.144		-		52
72GA 53		1.150		0+ T0						53
72GA 54						1.181				54
72GA 55						1.187				55
72GA 56						1.201				56
72GA 57						1.206				57
72GA 58						1.217		-		58
72GA 59						1.238				59
72GA 60						1.249		-		60
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72GA 61						1.263		3-,4-		61
72GA 62						1.286				62
72GA 63						1.297				63
72GA 64						1.324				64
72GA 65						1.338				65
72GA 66						1.360		-		66
72GA 67				1.380		0- T0		4-		67
72GA 68						1.396				68
72GA 69						1.428				69
72GA 70						1.435				70
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72GA 71						1.442				71
72GA 72						1.466				72
72GA 73						1.473				73
72GA 74						1.489				74
72GA 75						1.505				75
72GA 76						1.516				76
72GA 77						1.533				77
72GA 78						1.558		3-,4-		78
72GA 79						1.592		1-,2-		79
72GA 80						1.613				80
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72GA 81						1.626		-		81
72GA 82						1.630		1-,2-		82

72GA 83				1.653		83
72GA 84				1.681		84
72GA 85				1.691	-	85
72GA 86				1.714		86
72GA 87				1.728		87
72GA 88				1.750	-	88
72GA 89				1.759		89
72GA 90		1.777	0- T0 4-			90
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72GA 91				1.791		91
72GA 92				1.802	1-,2-	92
72GA 93				1.816	-	93
72GA 94				1.834		94
72GA 95				1.842		95
72GA 96				1.856		96
72GA 97				1.870		97
72GA 98				1.882		98
72GA 99				1.898		99
72GA 100				1.913		100
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72GA 101				1.918		101
72GA 102				1.925		102
72GA 103				1.942		103
72GA 104				1.977		104
72GA 105				1.989		105
72GA 106				2.007		106
72GA 107				2.018		107
72GA 108				2.024		108
72GA 109				2.043		109
72GA 110				2.056		110
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72GA 111				2.073		111
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S-p	=	8.548	( 0.003)	-----		
S-n	=	6.521	( 0.001)	-----		
S-2p	=	20.190	( 0.001)	-----		
S-2n	=	15.821	( 0.001)	-----		
S-alpha	=	5.446	( 0.002)	-----		
S+p	=	-9.998	( 0.001)			
S+n	=	-9.182	( 0.002)			
S+2p	=	-16.850	( 0.002)			
S+2n	=	-15.604	( 0.003)			
S+alpha	=	-6.128	( 0.001)			
gap p	=	-1.450	( 0.003)			
gap n	=	-2.662	( 0.002)			
gap 2p	=	3.340	( 0.002)			
gap 2n	=	0.217	( 0.003)			

gap alpha = -0.682 ( 0.002)