

^{49}Sc $Z = 21$ $N = 28$ adopted link ENSDF link

Based on ENSDF from Oct 2022, and mass evaluation from 2020

BE = 425.628 (0.002) MeV

Qbeta- = 2.002 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2	
49SC 1			0.000	7/2-	1 57.18 M 13	
49SC 2	2.229	1/2+			2 29.9 NS 11	
49SC 3	2.372	3/2+			3 1.40 NS 9	
49SC 4			3.085	3/2-	4 48 FS 29	
49SC 5				3.300	5	
49SC 6			3.517	3/2-	6	
49SC 7				3.522	7	
49SC 8				3.550	(3/2+,5/2+)	8
49SC 9			3.581	7/2-	9	
49SC 10				3.755	3/2+,5/2+	10
49SC 11			3.809	7/2-	11 21 FS 19	
49SC 12				3.915	(9/2-)	12
49SC 13				3.951		13
49SC 14	3.991	1/2+			14 0.7 NS GE	
49SC 15				4.047	(9/2-)	15
49SC 16			4.072	5/2-	16 28 FS 14	
49SC 17				4.192	(11/2-)	17
49SC 18				4.220		18
49SC 19				4.240		19
49SC 20				4.267	(15/2-)	20
49SC 21				4.285	(5/2+)	21
49SC 22			4.332	5/2-	22	
49SC 23				4.426		23
49SC 24				4.459		24
49SC 25			4.493	1/2-	25 23 FS LE	
49SC 26				4.579	1/2-,3/2-	26
49SC 27				4.715	1/2-,3/2-	27
49SC 28			4.738	5/2-	28 14 FS LE	
49SC 29				4.810	5/2-,7/2-	29
49SC 30				4.948	(1/2-,3/2-)	30
49SC 31				4.987	(3/2+,5/2+)	31
49SC 32				5.015	1/2-,3/2-	32
49SC 33				5.022	(1/2+)	33
49SC 34			5.030	3/2-	34	
49SC 35			5.077	5/2-	35	
49SC 36				5.142		36
49SC 37				5.229	(9/2-,11/2-)	37

49SC 38				5.230	3/2+,5/2+	38		
49SC 39				5.269		39		
49SC 40		5.376	5/2-			40	21 FS	10

49SC 41				5.438		41		
49SC 42				5.460		42		
49SC 43				5.562	(9/2-,11/2-)	43		
49SC 44				5.578	3/2+,5/2+	44		
49SC 45				5.632	(17/2+)	45		
49SC 46		5.663	3/2-			46		
49SC 47				5.735	(15/2-)	47		
49SC 48		5.815	1/2-			48		
49SC 49				5.845		49		
49SC 50				5.930		50		

49SC 51				5.979		51		
49SC 52				6.011		52	50 FS	LE
49SC 53				6.014		53		
49SC 54				6.069	(3/2+,5/2+)	54		
49SC 55				6.180	3/2+,5/2+	55		
49SC 56				6.212		56		
49SC 57				6.250	(7/2+)	57		
49SC 58				6.266		58		
49SC 59		6.306	5/2-			59		
49SC 60				6.330		60		

49SC 61		6.416	7/2-			61	21 FS	9
49SC 62				6.451		62		
49SC 63				6.504	3/2	63		
49SC 64				6.527		64		
49SC 65				6.624		65		
49SC 66				6.685		66		
49SC 67		6.728	3/2-			67		
49SC 68				6.745		68		
49SC 69				6.816	1/2-,3/2-	69		
49SC 70				6.829	5/2-,7/2-	70		

49SC 71				6.867		71		
49SC 72				6.910	(1/2+)	72		
49SC 73				6.917		73		
49SC 74				6.939		74		
49SC 75		6.986	5/2-			75	14 FS	LE
49SC 76				7.026	1/2-,3/2-	76		
49SC 77				7.041		77		
49SC 78				7.059	7/2+,9/2+	78		
49SC 79		7.062	1/2-			79		
49SC 80				7.151	5/2-,7/2-	80		

49SC 81				7.172		81		
49SC 82				7.186	(7/2+,9/2+)	82		

49SC 83				7.193	5/2	83
49SC 84				7.229	5/2	84
49SC 85				7.253	1/2-, 3/2-	85
49SC 86				7.293		86
49SC 87				7.320	1/2-, 3/2-	87
49SC 88				7.342	5/2-, 7/2-	88
49SC 89				7.375	5/2-, 7/2-	89
49SC 90				7.421	5/2-, 7/2-	90

49SC 91				7.442	1/2-, 3/2-	91
49SC 92				7.483	5/2-, 7/2-	92
49SC 93				7.500	1/2-, 3/2-	93
49SC 94				7.529	(7/2+, 9/2+)	94
49SC 95				7.583	(3/2+, 5/2+)	95
49SC 96				7.653	1/2-, 3/2-	96
49SC 97				7.678	(7/2+, 9/2+)	97
49SC 98				7.723	1/2-, 3/2-	98
49SC 99				7.746	(7/2+, 9/2+)	99
49SC 100				7.795	(7/2+, 9/2+)	100

49SC 101				7.832	1/2-, 3/2-	101
49SC 102				7.890	1/2-, 3/2-	102
49SC 103				7.940		103
49SC 104				7.998	1/2-, 3/2-	104
49SC 105				8.029		105
49SC 106				8.094	1/2-, 3/2-	106
49SC 107				8.147	1/2-, 3/2-	107
49SC 108				8.177	(7/2+, 9/2+)	108
49SC 109				8.200	1/2-, 3/2-	109
49SC 110				8.246		110

49SC 111				8.289	1/2-, 3/2-	111
49SC 112				8.330	5/2-, 7/2-	112
49SC 113				8.355	1/2-, 3/2-	113
49SC 114				8.434	1/2-, 3/2-	114
49SC 115				8.465	5/2-, 7/2-	115
49SC 116				8.625		116
49SC 117				8.693	3/2+, 5/2+	117
49SC 118				8.721	1/2-, 3/2-	118
49SC 119				8.751		119
49SC 120				8.781	1/2-, 3/2-	120

49SC 121				8.813	1/2-, 3/2-	121
49SC 122				8.848	1/2-, 3/2-	122
49SC 123				8.900	3/2+, 5/2+	123
49SC 124				8.929	5/2-, 7/2-	124
49SC 125				8.971	(7/2+, 9/2+)	125
49SC 126				9.008	3/2+, 5/2+	126
49SC 127				9.066	5/2-, 7/2-	127
49SC 128				9.117	3/2+, 5/2+	128

49SC 129				9.145	(1/2-,3/2-)	129
49SC 130				9.185	(5/2-,7/2-)	130

49SC 131				9.218		131
49SC 132				9.247	1/2-,3/2-	132
49SC 133				9.295	1/2-,3/2-	133
49SC 134				9.335		134
49SC 135				9.385	1/2-,3/2-	135
49SC 136				9.449	5/2-,7/2-	136
49SC 137				9.514	5/2-,7/2-	137
49SC 138				9.575	1/2-,3/2-	138
S-p	=	9.627	(0.002)	-----	
49SC 139				9.634	1/2-,3/2-	139
49SC 140				9.675	1/2-,3/2-	140

49SC 141				9.726	1/2-,3/2-	141
49SC 142				9.790	1/2-,3/2-	142
49SC 143				9.843	1/2-,3/2-	143
49SC 144				9.873	1/2-,3/2-	144
49SC 145				9.923	1/2-,3/2-	145
49SC 146				9.956	5/2-,7/2-	146
49SC 147				9.991	1/2-,3/2-	147

S-p = 9.627 (0.002)-----
 S-n = 10.130 (0.005)-----
 S-2p = 25.428 (0.003)-----
 S-2n = 18.368 (0.003)-----
 S-alpha= 12.372 (0.002)-----

S+p = -12.158 (0.002)
 S+n = -6.046 (0.003)
 S+2p = -20.219 (0.002)
 S+2n = -12.831 (0.003)
 S+alpha = -7.714 (0.004)

gap p = -2.532 (0.003)
 gap n = 4.084 (0.006)
 gap 2p = 5.210 (0.004)
 gap 2n = 5.538 (0.005)
 gap alpha = 4.657 (0.004)