

^{73}Se $Z = 34$ $N = 39$ adopted link ENSDF link

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

BE = 630.834 (0.007) MeV

Qbeta+ = 2.725 (0.008) MeV

	Energy T	J+	J-	J-other	T1/2
73SE 1	0.000	9/2+			1 7.15 H 9
73SE 2			0.026 3/2-		2 39.8 M 17
73SE 3				0.026 (3/2-)	3
73SE 4				0.091 (1/2,3/2)-	4
73SE 5			0.151 5/2-		5 222 PS 33
73SE 6	0.192	5/2+			6 0.97 NS 21
73SE 7	0.295	7/2+			7
73SE 8				0.400 (5/2-)	8
73SE 9				0.427 (1/2-,3/2-)	9
73SE 10			0.505 7/2-		10 4.7 PS 5
73SE 11				0.566 (1/2,3/2)	11
73SE 12				0.575 5/2(+)	12
73SE 13	0.639	9/2+			13
73SE 14				0.641 (1/2-,3/2)	14
73SE 15				0.645	15
73SE 16				0.685 (5/2-)	16
73SE 17				0.725 7/2(+)	17
73SE 18				0.790 (1/2-,3/2-)	18
73SE 19			0.791 5/2-		19
73SE 20			0.805 9/2-		20 2.50 PS 14
73SE 21				0.940 (1/2-,3/2-)	21
73SE 22	0.943	11/2+			22 0.97 PS 21
73SE 23	0.971	13/2+			23 0.88 PS 7
73SE 24	0.999	11/2+			24
73SE 25				1.022 (1/2-,3/2-)	25
73SE 26				1.092	26
73SE 27				1.092 (9/2)	27
73SE 28			1.180 11/2-		28 1.52 PS 14
73SE 29				1.230 (9/2-)	29
73SE 30				1.295	30
73SE 31			1.356 9/2-		31
73SE 32				1.551 (1/2,3/2)	32
73SE 33			1.553 13/2-		33 1.08 PS 14
73SE 34				1.564	34
73SE 35				1.565 (11/2)	35
73SE 36	1.573	13/2+			36 1.3 PS 4
73SE 37				1.619 (1/2,3/2)	37

73SE 38						1.699		38				
73SE 39		1.863	15/2+					39	0.14 PS	7		
73SE 40						1.883	(11/2-)	40				

73SE 41						1.933		41	1.7 PS	4		
73SE 42					2.002	15/2-		42	0.49 PS	14		
73SE 43						2.010	(13/2-)	43				
73SE 44		2.014	17/2+					44	0.18 PS	4		
73SE 45						2.041	(13/2+)	45				
73SE 46					2.090	13/2-		46				
73SE 47						2.210	(15/2+)	47	0.76 PS	21		
73SE 48						2.267		48				
73SE 49					2.433	17/2-		49	0.44 PS	8		
73SE 50						2.486		50				

73SE 51						2.626		51				
73SE 52						2.638	(17/2+)	52	0.45 PS	14		
73SE 53						2.868	(17/2-)	53				
73SE 54						2.873	(19/2+)	54	0.56 PS	14		
73SE 55						2.950	(19/2-)	55	0.20 PS	6		
73SE 56						3.004	(17/2-)	56	0.76 PS	21		
73SE 57					3.098	19/2-		57	1.8 PS	6		
73SE 58						3.171	(21/2+)	58	0.139 PS	35		
73SE 59						3.203		59	0.28 PS	14		
73SE 60						3.303	(15/2,19/2)	60	0.42 PS	14		

73SE 61						3.440	(21/2-)	61	0.125 PS	21		
S-alpha=		3.552	(0.008)	-----								
73SE 62						3.834		62				
73SE 63						3.854		63				
73SE 64						3.913	(23/2+)	64				
73SE 65						4.012	(23/2-)	65	0.104 PS	14		
73SE 66						4.386	(25/2+)	66	0.062 PS	21		
73SE 67						4.589	(25/2-)	67	0.062 PS	21		
73SE 68						4.944		68				
73SE 69						4.952	(27/2+)	69				
73SE 70						5.219	(27/2-)	70	0.069 PS	14		

73SE 71						5.636	(29/2+)	71	0.118 PS	14		
73SE 72						5.853	(29/2-)	72	0.055 PS	14		
73SE 73						5.890		73				
73SE 74						6.526	(31/2-)	74	0.069 PS	14		
73SE 75						7.014	(33/2+)	75	0.090 PS	7		
73SE 76						7.232	(33/2-)	76	0.139 PS	14		
S-p =		7.287	(0.008)	-----								
73SE 77						7.954	(35/2-)	77	0.236 PS	21		
S-n =		8.431	(0.008)	-----								
73SE 78						8.530	(37/2+)	78				
73SE 79						8.754	(37/2-)	79				
73SE 80						9.532	(39/2-)	80				

```

-----
S-p    =  7.287 ( 0.008)-----
S-n    =  8.431 ( 0.008)-----
S-2p   = 12.899 ( 0.007)-----
S-2n   = 21.224 ( 0.008)-----
S-alpha=  3.552 ( 0.008)-----

S+p    = -4.350 ( 0.009)
S+n    = -12.057 ( 0.007)
S+2p   = -10.674 ( 0.011)
S+2n   = -20.085 ( 0.007)
S+alpha = -4.367 ( 0.008)

gap p   =  2.937 ( 0.013)
gap n   = -3.627 ( 0.011)
gap 2p  =  2.225 ( 0.013)
gap 2n  =  1.139 ( 0.011)
gap alpha = -0.815 ( 0.011)

```