

$^{136}\text{Sm}$        $Z = 62$        $N = 74$       adopted link      ENSDF link

Based on ensdf\_240402 (Apr 2024), and mass evaluation from 2020

BE = 1116.005 ( 0.012) MeV

Qbeta+ = 4.359 ( 0.070) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-2.190	( 0.027)	-----		
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136SM 1	0.000	0+			1 47 S 2
136SM 2	0.255	2+			2 88 PS 9
136SM 3	0.686	4+			3 5.0 PS 5
136SM 4	0.713	(2+)			4
136SM 5	1.171	(4+)			5
136SM 6	1.221	6+			6 1.5 PS 5
136SM 7	1.491	(2+)			7
136SM 8	1.641	(6+)			8
136SM 9	1.799	8+			9 1.0 PS 3
136SM 10	2.250	(8+)			10
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136SM 11			2.265	(8-)	11 15 US 1
136SM 12			2.275	(7-)	12
136SM 13	2.415	10+			13 0.9 PS 3
136SM 14			2.679	(9-)	14
136SM 15			2.738	(9-)	15
136SM 16			2.768	(8-)	16
136SM 17	2.954	(10+)			17
136SM 18	3.092	(12+)			18
136SM 19			3.112	(10-)	19
136SM 20			3.218	(10-)	20
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136SM 21			3.291	(11-)	21
136SM 22	3.337	12+			22
136SM 23			3.556	(11-)	23
136SM 24	3.683	(12+)			24
136SM 25	3.828	(14+)			25
136SM 26	3.889	(14+)			26
136SM 27			3.892	(12-)	27
136SM 28			3.921	(13-)	28
136SM 29	3.991	(14+)			29
136SM 30			4.015	(12-)	30
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S-p	=	4.038	( 0.084)	-----	
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136SM 31				4.169	31
136SM 32				4.322	32
136SM 33				4.423	33
136SM 34	4.437	(14+)			34

136SM	35				4.465	(13-)			35
136SM	36							4.588	36
136SM	37				4.598	(14-)			37
136SM	38		4.603	(16+)					38
136SM	39				4.619	(15-)			39
136SM	40		4.735	(16+)					40
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136SM	41		4.837	(16+)					41
136SM	42							4.862	42
136SM	43				4.928	(14-)			43
136SM	44							5.205	44
136SM	45				5.379	(17-)			45
136SM	46		5.446	(18+)					46
136SM	47							5.592	47
136SM	48		5.636	(18+)					48
S-2p	=		5.742	( 0.017)	-----				
136SM	49		5.796	(18+)					49
136SM	50							6.002	50
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136SM	51				6.206	(19-)			51
136SM	52		6.356	(20+)					52
136SM	53		6.595	(20+)					53
136SM	54				7.110	(21-)			54
136SM	55		7.328	(22+)					55
136SM	56		7.567	(22+)					56
136SM	57		8.350	(24+)					57
136SM	58		8.610	(24+)					58

S-p = 4.038 ( 0.084) -----  
S-n = 12.025 ( 0.155) -----  
S-2p = 5.742 ( 0.017) -----  
S-2n = 21.627 ( 0.135) -----  
S-alpha = -2.190 ( 0.027) -----

S+p = -0.624 ( 0.013)  
S+n = -9.252 ( 0.031)  
S+2p = -3.451 ( 0.139)  
S+2n = -20.829 ( 0.017)  
S+alpha = 2.604 ( 0.031)

gap p = 3.414 ( 0.085)  
gap n = 2.773 ( 0.158)  
gap 2p = 2.291 ( 0.140)  
gap 2n = 0.797 ( 0.136)  
gap alpha = 0.414 ( 0.041)