

^{135}Pr $Z = 59$ $N = 76$ adopted link ENSDF link

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

BE = 1124.405 (0.012) MeV

Qbeta+ = 3.680 (0.016) MeV

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

S-alpha=	-0.408 (0.030)				
135PR 1				0.000 3/2(+)	1 24 M 1
135PR 2				0.041 5/2(+)	2
135PR 3				0.206 7/2(+)	3
135PR 4				0.245 7/2(+)	4
135PR 5				0.358 (11/2-)	5 105 US 10
135PR 6				0.493 7/2(+)	6
135PR 7				0.517 9/2(+)	7
135PR 8				0.543 7/2(-)	8
135PR 9				0.591	9
135PR 10				0.688 (9/2+)	10

135PR 11				0.731 (15/2-)	11 22.9 PS 14
135PR 12				0.777 (11/2+)	12
135PR 13				0.799 9/2(-)	13
135PR 14				0.952 (13/2-)	14
135PR 15				0.985 (9/2+)	15
135PR 16				1.017	16
135PR 17				1.090 (5/2+,7/2,9/2+)	17
135PR 18				1.105	18
135PR 19				1.160 (9/2-)	19
135PR 20				1.181 (7/2+,9/2)	20

135PR 21				1.185 (9/2-,11/2-)	21
135PR 22				1.214 (7/2-,9/2-,11/2-)	22
135PR 23				1.222 (11/2+)	23
135PR 24				1.232 (13/2+)	24
135PR 25				1.290 (11/2-)	25
135PR 26				1.303 (11/2-)	26
135PR 27				1.307 (-)	27
135PR 28				1.325 (11/2+)	28
135PR 29				1.352	29
135PR 30				1.391 (19/2-)	30 2.4 PS 6

135PR 31				1.410	31
135PR 32				1.433 (17/2-)	32
135PR 33				1.461 (11/2+)	33
135PR 34				1.478 (17/2-)	34
135PR 35				1.506 (15/2+)	35
135PR 36				1.508 (11/2+)	36

135PR 37				1.532		37
135PR 38				1.571		38
135PR 39				1.636	(13/2+)	39
135PR 40				1.742		40

135PR 41				1.766	(7/2-,9/2-,11/2-	41)
135PR 42				1.794		42
135PR 43				1.816	(-)	43
135PR 44				1.905		44
135PR 45				1.929	(19/2-)	45
135PR 46				1.959		46
135PR 47				1.998	(7/2,9/2,11/2+)	47
135PR 48				2.003		48
135PR 49				2.014		49
135PR 50				2.104		50

135PR 51				2.116	(17/2+)	51
135PR 52				2.129	(7/2,9/2,11/2-)	52
135PR 53				2.156		53
135PR 54				2.158	(21/2-)	54
135PR 55				2.205	(21/2-)	55
135PR 56				2.245	(23/2-)	56
135PR 57				2.347	(23/2-)	57
135PR 58				2.356		58
135PR 59				2.373	(19/2+)	59
135PR 60				2.396	(19/2+)	60

135PR 61				2.590	(21/2+)	61
135PR 62				2.618	(21/2+)	62
135PR 63				2.755		63
135PR 64				2.847	(23/2+)	64
135PR 65				2.901	(23/2+)	65
135PR 66				3.001	(25/2-)	66
135PR 67				3.124	(25/2+)	67
135PR 68				3.205	(25/2)	68
135PR 69				3.245	(27/2-)	69

S-p	=	3.392	(0.024)	-----		
135PR 70				3.422	(27/2+)	70

135PR 71				3.489		71
135PR 72				3.518		72
135PR 73				3.531		73
135PR 74				3.643	(27/2)	74
135PR 75				3.659	(29/2+)	75
135PR 76				3.863		76
135PR 77				3.957	(29/2-)	77
135PR 78				4.108	(31/2+)	78
135PR 79				4.220	(31/2)	79
135PR 80				4.293		80

0.92 PS 5

135PR 81				4.320	(31/2-)	81
135PR 82				4.394		82
135PR 83				4.465	(33/2+)	83
135PR 84				4.705		84
135PR 85				4.965	(35/2+)	85
135PR 86				5.031		86
135PR 87				5.069	(33/2-)	87
135PR 88				5.164	(35/2-)	88
135PR 89				5.337		89
135PR 90				5.421	(37/2+)	90

135PR 91				5.455		91
135PR 92				5.954		92
135PR 93				5.974	(39/2+)	93
135PR 94				5.998	(39/2-)	94
135PR 95				6.501	(41/2+)	95
135PR 96				6.511		96
135PR 97				6.880	(43/2-)	97
135PR 98				6.979	(43/2+)	98
135PR 99				7.515	(45/2+)	99
135PR 100				7.803	(47/2-)	100

135PR 101				7.899	(47/2+)	101
135PR 102				8.716	(51/2-)	102
135PR 103				9.004	(51/2+)	103
135PR 104				9.678	(55/2-)	104

S-p = 3.392 (0.024)-----
S-n = 10.479 (0.023)-----
S-2p = 10.019 (0.030)-----
S-2n = 19.141 (0.017)-----
S-alpha= -0.408 (0.030)-----

S+p = -5.552 (0.017)
S+n = -8.476 (0.016)
S+2p = -7.715 (0.018)
S+2n = -18.408 (0.014)
S+alpha = 1.010 (0.018)

gap p = -2.160 (0.029)
gap n = 2.003 (0.029)
gap 2p = 2.305 (0.035)
gap 2n = 0.733 (0.022)
gap alpha = 0.602 (0.035)