

^{103}Ru $Z = 44$ $N = 59$ adopted link ENSDF link

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

BE = 884.190 (0.000) MeV

Qbeta- = 0.765 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2
103RU 1	0.000	3/2+			1 39.247 D 13
103RU 2	0.003	5/2+			2
103RU 3	0.136	5/2+			3
103RU 4	0.174	1/2+			4
103RU 5	0.214	7/2+			5 15 NS LT
103RU 6			0.238 11/2-		6 1.69 MS 7
103RU 7				0.297 (7/2)-	7
103RU 8	0.346	3/2+			8
103RU 9				0.404 (7/2)+	9
103RU 10				0.406 3/2+,5/2+	10
103RU 11	0.432	1/2+			11
103RU 12				0.476	12
103RU 13				0.501 (5/2)+	13
103RU 14				0.535 (3/2+,5/2+)	14
103RU 15				0.548 (1/2+)	15
103RU 16				0.555 (1/2+)	16
103RU 17				0.558 (9/2+)	17
103RU 18				0.563 (3/2+,5/2+)	18
103RU 19				0.568	19
103RU 20				0.592 (5/2)+	20
103RU 21				0.622 (5/2+)	21
103RU 22			0.654 15/2-		22
103RU 23				0.662 (3/2)+	23
103RU 24				0.697 7/2+,9/2+	24
103RU 25				0.735 (5/2+)	25
103RU 26	0.737	1/2+			26
103RU 27				0.749 (5/2+)	27
103RU 28	0.774	11/2+			28
103RU 29				0.775 (3/2+,5/2+)	29
103RU 30				0.855	30
103RU 31				0.874 (3/2+,5/2+)	31
103RU 32				0.903 (LE 5/2+)	32
103RU 33				0.905 3/2+,5/2+	33
103RU 34				0.908 (LE 5/2+)	34
103RU 35				0.912 (7/2+)	35
103RU 36	0.927	1/2+			36
103RU 37				0.931 (3/2,5/2)	37

103RU	38					0.941		38
103RU	39					0.954	(3/2)	39
103RU	40					0.989		40

103RU	41					0.992		41
103RU	42					1.004	3/2+,5/2+	42
103RU	43					1.018	(5/2,7/2)	43
103RU	44					1.020	(11/2-,13/2-)	44
103RU	45					1.057	(7/2+,9/2+)	45
103RU	46					1.065	3/2+,5/2+,7/2+	46
103RU	47					1.080	(7/2+,9/2+)	47
103RU	48		1.107	1/2+				48
103RU	49					1.110	(3/2+,5/2+)	49
103RU	50					1.111	(11/2+)	50

103RU	51					1.134		51
103RU	52					1.141	(3/2,5/2)	52
103RU	53					1.171	(1/2,3/2)	53
103RU	54					1.174	(3/2)	54
103RU	55					1.182	3/2+,5/2+	55
103RU	56					1.200	(13/2+)	56
103RU	57					1.238	3/2+,5/2+	57
103RU	58					1.251	3/2+,5/2+	58
103RU	59					1.270		59
103RU	60					1.288		60

103RU	61				1.301	19/2-		61
103RU	62					1.314	(11/2)+	62
103RU	63					1.322	9/2-,11/2-	63
103RU	64					1.324		64
103RU	65					1.338		65
103RU	66					1.347		66
103RU	67					1.370		67
103RU	68					1.378		68
103RU	69					1.401		69
103RU	70					1.431		70

103RU	71		1.444	15/2+				71
103RU	72					1.461		72
103RU	73					1.474		73
103RU	74					1.490		74
103RU	75					1.558	3/2+,5/2+	75
103RU	76					1.604		76
103RU	77					1.642		77
103RU	78					1.662	(5/2+,3/2+)	78
103RU	79					1.699		79
103RU	80					1.717		80

103RU	81					1.730		81
103RU	82					1.755	1/2-,3/2-	82

103RU 83						1.780		83
103RU 84		1.809	1/2+					84
103RU 85						1.817		85
103RU 86						1.836		86
103RU 87						1.881		87
103RU 88						1.892		88
103RU 89						1.906	(3/2-, 1/2-)	89
103RU 90						1.962	3/2+, 5/2+	90

103RU 91						2.004		91
103RU 92						2.022		92
103RU 93						2.058	(3/2+, 5/2+)	93
103RU 94						2.082	3/2+, 5/2+	94
103RU 95						2.118	(5/2+, 3/2+)	95
103RU 96					2.130	23/2-		96
103RU 97		2.132	19/2+					97
103RU 98						2.137	(3/2+, 5/2+)	98
103RU 99						2.167	7/2+, 9/2+	99
103RU 100						2.206		100

103RU 101						2.217		101
103RU 102						2.224		102
103RU 103						2.232		103
103RU 104						2.248		104
103RU 105						2.280		105
103RU 106						2.299	1/2-, 3/2-	106
103RU 107						2.384	1/2-, 3/2-	107
103RU 108						2.405		108
103RU 109						2.443		109
103RU 110						2.489		110

103RU 111						2.507	1/2-, 3/2-	111
103RU 112		2.515	1/2+					112
103RU 113						2.520		113
103RU 114						2.548	1/2-, 3/2-	114
103RU 115						2.576		115
103RU 116						2.627	5/2+, 3/2+	116
103RU 117						2.657		117
103RU 118		2.680	23/2+					118
103RU 119						2.694		119
103RU 120						2.723		120

103RU 121						2.960		121
103RU 122						3.015		122
103RU 123						3.062		123
103RU 124					3.079	27/2-		124
103RU 125						3.204		125
103RU 126						3.276	(27/2+)	126
103RU 127						3.325		127
103RU 128						3.512		128

S-alpha=	3.722	(0.000)	-----		
103RU 129			4.059	(31/2+)	129
103RU 130			4.083	(31/2-)	130

103RU 131			5.028	(35/2+)	131
103RU 132			5.127	(35/2-)	132

S-p	=	9.983	(0.009)	-----	
S-n	=	6.232	(0.001)	-----	
S-2p	=	18.325	(0.001)	-----	
S-2n	=	15.452	(0.001)	-----	
S-alpha	=	3.722	(0.000)	-----	

S+p	=	-6.981	(0.002)
S+n	=	-8.900	(0.003)
S+2p	=	-15.729	(0.001)
S+2n	=	-14.810	(0.003)
S+alpha	=	-3.530	(0.001)

gap p	=	3.002	(0.009)
gap n	=	-2.668	(0.003)
gap 2p	=	2.596	(0.001)
gap 2n	=	0.642	(0.003)
gap alpha	=	0.192	(0.001)