

$^{101}\text{Ru}$        $Z = 44$        $N = 57$       adopted link      ENSDF link

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

BE = 868.738 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
101RU 1	0.000	5/2+			1 STABLE
101RU 2	0.127	3/2+			2 0.655 NS 4
101RU 3	0.307	7/2+			3 0.053 NS 14
101RU 4	0.311	5/2+			4 0.15 NS LE
101RU 5	0.325	1/2+			5 0.20 NS 4
101RU 6	0.422	3/2+			6 1.4 PS GE
101RU 7			0.528 11/2-		7 17.5 US 4
101RU 8	0.535	3/2+			8
101RU 9	0.545	7/2+			9 1.5 PS 3
101RU 10				0.598 (5/2-)	10
101RU 11				0.616 3/2+,5/2+	11
101RU 12				0.623 3/2+,5/2+	12
101RU 13	0.624	1/2+			13 17 PS +3-2
101RU 14				0.684	14
101RU 15				0.720 1/2-,3/2-	15
101RU 16	0.720	9/2+			16 3.0 PS 8
101RU 17				0.742	17
101RU 18				0.824 3/2+,5/2+	18
101RU 19				0.843 (7/2)+	19
101RU 20				0.907 1/2-,3/2-	20
101RU 21				0.927 3/2+,5/2+	21
101RU 22	0.929	9/2+			22
101RU 23				0.938 (7/2)+	23
101RU 24			0.958 15/2-		24
101RU 25	0.973	3/2+			25
101RU 26	1.001	11/2+			26
101RU 27				1.038 3/2+,5/2+	27
101RU 28				1.051 7/2+,9/2+	28
101RU 29	1.098	1/2+			29
101RU 30	1.111	1/2+			30
101RU 31				1.164 3/2+,5/2+	31
101RU 32				1.207	32
101RU 33				1.219	33
101RU 34				1.225 7/2+,9/2+	34
101RU 35	1.227	1/2+			35
101RU 36				1.266 3/2+,5/2+	36
101RU 37	1.276	1/2+			37
101RU 38				1.322 (11/2+)	38

101RU 39						1.390				39
101RU 40						1.425				40
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101RU 41						1.477	3/2+,5/2+			41
101RU 42						1.499	1/2,3/2			42
101RU 43		1.501	13/2+							43 0.59 PS 17
101RU 44						1.536				44
101RU 45						1.542	3/2+,5/2+			45
101RU 46		1.587	5/2+							46
101RU 47				1.622	19/2-					47 1.2 PS GT
101RU 48						1.659				48
101RU 49						1.688	11/2-,9/2-			49
101RU 50						1.701	(3/2+,5/2+)			50
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101RU 51		1.714	1/2+							51
101RU 52		1.758	1/2+							52
101RU 53						1.762				53
101RU 54				1.774	11/2-					54 2.4 PS +21-10
101RU 55						1.779	3/2-,1/2-			55
101RU 56						1.812	5/2+,9/2+			56
101RU 57						1.822	5/2+,3/2+			57
101RU 58		1.843	3/2+							58
101RU 59		1.858	1/2+							59
101RU 60		1.862	15/2+							60 1.7 PS GT
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101RU 61		1.880	3/2+							61
101RU 62						1.893				62
101RU 63		1.936	1/2+							63
101RU 64						1.962	(1/2,3/2)			64
101RU 65		1.971	3/2+							65
101RU 66						1.997	3/2+,3/2-			66
101RU 67						2.017	(1/2,3/2)			67
101RU 68						2.017	(11/2 TO 19/2)			68
101RU 69		2.057	1/2+							69
101RU 70						2.063				70
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101RU 71						2.087	1/2,3/2			71
101RU 72						2.100				72
101RU 73						2.131	1/2-,3/2-			73
101RU 74						2.147	(1/2-,3/2-)			74
101RU 75		2.174	17/2+							75 1.4 PS GT
101RU 76						2.218				76
101RU 77						2.223	(11/2 TO 19/2)			77
101RU 78						2.244				78
101RU 79						2.299	3/2+,5/2+			79
101RU 80						2.318	1/2,3/2			80
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101RU 81						2.327				81
101RU 82						2.346	(1/2-,3/2-)			82
101RU 83						2.350	(3/2+,5/2+)			83

101RU 84		2.377	17/2+					84	
101RU 85						2.404	3/2+,5/2+	85	
101RU 86						2.443	3/2+,5/2+	86	
101RU 87						2.459	(5/2-,7/2-)	87	
101RU 88					2.473	23/2-		88	
101RU 89						2.493	5/2+,3/2+	89	
101RU 90						2.544		90	
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101RU 91						2.561	(1/2,3/2)	91	
101RU 92						2.601		92	
101RU 93						2.601	5/2-,7/2-	93	
101RU 94						2.625	1/2,3/2	94	
101RU 95						2.660	1/2,3/2	95	
101RU 96						2.694	5/2+,3/2+	96	
101RU 97						2.718	1/2-,3/2-	97	
101RU 98						2.752		98	
101RU 99						2.769	1/2,3/2	99	
101RU 100						2.784	5/2-,7/2-	100	
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101RU 101						2.797	(15/2 TO 23/2)	101 0.55 PS +14-7	
101RU 102						2.802	(21/2+)	102	
101RU 103						2.815		103	
101RU 104		2.824	19/2+					104	
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S-alpha=		2.838	( 0.000)	-----					
101RU 105						2.844	(5/2-,7/2-)	105	
101RU 106						2.869		106	
101RU 107						2.878	(1/2,3/2)	107	
101RU 108						2.885		108	
101RU 109		2.887	19/2+					109	
101RU 110						2.901		110	
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101RU 111						2.918		111	
101RU 112						2.931		112	
101RU 113						2.977		113	
101RU 114						2.984		114	
101RU 115						3.019		115	
101RU 116		3.053	21/2+					116 1.0 PS 4	
101RU 117						3.065		117	
101RU 118						3.083		118	
101RU 119						3.120		119	
101RU 120						3.173		120	
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101RU 121		3.228	1/2+					121	
101RU 122						3.237	(23/2,21/2)	122	
101RU 123						3.286	1/2,3/2	123	
101RU 124						3.291	(27/2+)	124	
101RU 125						3.395	1/2,3/2	125	
101RU 126		3.444	23/2+					126	
101RU 127					3.478	27/2-		127 1.0 PS 4	
101RU 128						3.656		128	

101RU 129		3.681	25/2+					129
101RU 130						3.714		130
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101RU 131						4.044		131
101RU 132						4.141	(27/2+)	132
101RU 133						4.183	(27/2+)	133
101RU 134		4.451	29/2+					134
101RU 135					4.614	31/2-		135 0.42 PS +21-11
101RU 136						4.968	(31/2+)	136
101RU 137						5.233	(31/2+)	137
101RU 138						5.265	(29/2,27/2)	138
101RU 139						5.374	(29/2,31/2)	139
101RU 140		5.375	33/2+					140
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101RU 141					5.831	35/2-		141
101RU 142						5.903	(35/2,33/2)	142
101RU 143						5.946	(35/2+)	143
101RU 144						6.469	(37/2+)	144
S-n	=	6.802	( 0.001)	-----				
101RU 145						7.077	(39/2+)	145
101RU 146						7.095	(39/2-)	146
101RU 147						7.679	(41/2+)	147
101RU 148						8.318	(43/2+)	148
101RU 149						8.432	(43/2-)	149
101RU 150						9.002	(45/2+)	150
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S-p	=	9.226	( 0.001)	-----				
101RU 151						9.826	(47/2-)	151
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S-p	=	9.226	( 0.001)	-----				
S-n	=	6.802	( 0.001)	-----				
S-2p	=	16.566	( 0.000)	-----				
S-2n	=	16.475	( 0.001)	-----				
S-alpha	=	2.838	( 0.000)	-----				
S+p	=	-6.114	( 0.006)					
S+n	=	-9.220	( 0.001)					
S+2p	=	-14.077	( 0.001)					
S+2n	=	-15.452	( 0.001)					
S+alpha	=	-2.885	( 0.001)					
gap p	=	3.112	( 0.007)					
gap n	=	-2.418	( 0.001)					
gap 2p	=	2.489	( 0.001)					
gap 2n	=	1.024	( 0.001)					
gap alpha	=	-0.046	( 0.001)					