

$^{100}\text{Ru}$        $Z = 44$        $N = 56$       adopted link      ENSDF link

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

BE = 861.936 ( 0.000) MeV

	Energy T	J+	J-	J-other	T1/2
100RU 1	0.000	0+			1 STABLE
100RU 2	0.540	2+			2 12.54 PS 10
100RU 3	1.130	0+			3 8.2 PS +15-11
100RU 4	1.226	4+			4 2.6 PS 2
100RU 5	1.362	2+			5 0.95 PS +24-16
100RU 6	1.741	0+			6 1.39 PS GT
100RU 7	1.828	0+			7
100RU 8	1.865	2+			8 0.66 PS +20-12
100RU 9	1.881	3+			9 0.90 PS +40-22
100RU 10	2.052	0+			10 1.0 PS +11-4
100RU 11	2.063	4+			11 0.56 PS +92-22
100RU 12	2.076	6+			12 0.28 PS GT
100RU 13	2.099	2+			13 0.39 PS +7-6
100RU 14				2.131 2+,3+	14
100RU 15			2.167 3-		15 34 PS +12-8
100RU 16				2.194	16
100RU 17	2.241	2+			17 83 PS 6
100RU 18				2.268 2+,3+	18
100RU 19				2.313 (3-,4+)	19
100RU 20				2.325 (3-:6+)	20
100RU 21	2.351	4+			21 0.42 PS +26-12
100RU 22	2.367	4+			22 0.78 PS +76-26
100RU 23	2.387	0+			23 0.52 PS GT
100RU 24				2.414 (4+)	24 87 FS +7-6
100RU 25				2.438 2+,3+	25
100RU 26			2.469 2-		26 0.44 PS +51-16
100RU 27				2.493 (3,4,5+)	27 0.83 PS GT
100RU 28				2.512 (4)+	28 0.41 PS +55-15
100RU 29			2.517 1-		29 105 FS +43-26
100RU 30			2.527 5-		30 0.6 PS +14-3
100RU 31				2.536 3	31 0.7 PS +12-3
100RU 32	2.544	2+			32 0.38 PS +49-15
100RU 33				2.570 (3)-	33 0.30 PS GT
100RU 34				2.577 5(+)	34 125 FS GT
100RU 35			2.592 4-		35 0.26 PS +62-12
100RU 36				2.606 (2,3)	36 71 FS +10-8
100RU 37				2.617 1,2+	37 121 FS +26-19
100RU 38				2.634 (0:5)+	38

100RU	39				2.660	1,2+	39	48 FS	+6-5
100RU	40				2.661	5(+)	40		
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100RU	41				2.666	(2,3)	41	55 FS	+6-5
100RU	42	2.706	6+				42		
100RU	43				2.739	(2+,3,4+)	43		
100RU	44				2.746	(1,2+)	44	132 FS	+42-28
100RU	45				2.747	4(-)	45		
100RU	46				2.765	2+,3+	46	0.17 PS	GT
100RU	47				2.775	(5-)	47		
100RU	48				2.775	2+,3+	48	0.30 PS	+24-10
100RU	49				2.785	6(+)	49		
100RU	50				2.801	(2+,3)	50	0.13 PS	+5-3
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100RU	51				2.801	(1+,2,3)	51	97 FS	+17-13
100RU	52				2.816	2+,3+	52		
100RU	53	2.833	0+				53		
100RU	54				2.838	(1+,2+)	54	116 FS	+21-17
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S-alpha= 2.857 ( 0.000)-----									
100RU	55				2.863	(0+:4+)	55	0.25 PS	+51-10
100RU	56				2.878	2+,3+	56		
100RU	57				2.878	2+,3,4+	57	140 FS	+30-21
100RU	58				2.890	2+,3+	58		
100RU	59				2.905	(4+)	59	0.21 PS	+8-5
100RU	60				2.911	5(-)	60		
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100RU	61			2.916	2-		61	0.35 PS	+29-11
100RU	62				2.934	(1,2)+	62		
100RU	63				2.951	2+,3,4+	63	87 FS	+14-10
100RU	64			2.952	7-		64		
100RU	65			2.964	6-		65		
100RU	66				2.968	6(+)	66		
100RU	67				2.983	(0:4)+	67		
100RU	68				2.999	(0+:4+)	68	0.18 PS	+10-5
100RU	69				3.017		69		
100RU	70				3.034		70		
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100RU	71				3.058	(2,3,4)	71		
100RU	72	3.060	8+				72		
100RU	73				3.060	1,2+	73	11 FS	3
100RU	74	3.065	4+				74	37 FS	+10-7
100RU	75				3.070	(1,2)-	75	0.45 PS	GT
100RU	76	3.072	2+				76	0.20 PS	+14-6
100RU	77				3.102		77		
100RU	78				3.111	(2+,3+)	78	0.26 PS	GT
100RU	79				3.119	(0+:4+)	79	37 PS	+8-6
100RU	80			3.139	7-		80		
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100RU	81				3.177	2+,3+	81		
100RU	82				3.218	(8)-	82		

100RU 83				3.232		83
100RU 84				3.264	8(+)	84
100RU 85				3.266	(0:5)+	85
100RU 86				3.272		86
100RU 87				3.301	2+,3+	87
100RU 88				3.308		88
100RU 89				3.324	(1,2+)	89
100RU 90				3.326		90
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100RU 91				3.332		91
100RU 92				3.348		92
100RU 93		3.355	8-			93
100RU 94				3.369	(7-)	94
100RU 95				3.375		95
100RU 96				3.419	(2+)	96
100RU 97				3.441	2+,3+	97
100RU 98				3.447	7(+)	98
100RU 99				3.460		99
100RU 100				3.463	(1+,2)	100
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100RU 101		3.503	9-			101
100RU 102				3.517	2+,3+	102
100RU 103				3.550	8(+)	103
100RU 104		3.576	9-			104
100RU 105				3.576	7(+)	105
100RU 106				3.585	2+,3+	106
100RU 107				3.599	(8-)	107
100RU 108				3.608	2+,3+	108
100RU 109				3.610	7(+)	109
100RU 110				3.661	(4,5,6)	110
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100RU 111				3.693	(0:5)+	111
100RU 112				3.732		112
100RU 113				3.780	(1:4)+	113
100RU 114				3.852	(4+,5,6,7+)	114
100RU 115				3.878	2+,3+	115
100RU 116				3.883		116
100RU 117				3.930	(8+)	117
100RU 118				3.960	(9-)	118
100RU 119				3.974	(0+:5+)	119
100RU 120				3.983	(1+:4+)	120
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100RU 121		3.992	10-			121
100RU 122				4.001		122
100RU 123				4.049		123
100RU 124				4.076	(8,9-)	124
100RU 125	4.083	10+				125
100RU 126				4.091		126
100RU 127				4.097	(9-)	127
100RU 128				4.103		128

100RU 129				4.149		129
100RU 130				4.188	(1+:4+)	130
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100RU 131		4.231	11-			131
100RU 132				4.236	(10-)	132
100RU 133				4.236	10(+)	133
100RU 134				4.248	(7-,8,9)	134
100RU 135				4.257		135
100RU 136				4.273		136
100RU 137				4.307		137
100RU 138		4.316	11-			138
100RU 139				4.338		139
100RU 140				4.343	9(+)	140
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100RU 141				4.353	(10+)	141
100RU 142				4.366	(1+:4+)	142
100RU 143				4.376		143
100RU 144				4.382	(7,8,9+)	144
100RU 145				4.404		145
100RU 146				4.409	(9-,10-)	146
100RU 147				4.503	(10+)	147
100RU 148				4.520		148
100RU 149				4.530		149
100RU 150				4.544		150
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100RU 151				4.586		151
100RU 152				4.601		152
100RU 153				4.651		153
100RU 154				4.663	(11-)	154
100RU 155				4.792	(8+,9,10+)	155
100RU 156				4.798	12(-)	156
100RU 157				4.819	(10+)	157
100RU 158	4.918	12+				158
100RU 159				5.010	(8+,9,10,11)	159
100RU 160				5.066	(12-)	160
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100RU 161				5.126	(12+)	161
100RU 162		5.163	13-			162
100RU 163				5.275	(13-)	163
100RU 164				5.307	(12+)	164
100RU 165	5.713	14+				165
100RU 166				5.784	(14-)	166
100RU 167				6.167	(15-)	167
100RU 168				6.284	(15-)	168
100RU 169				6.365	(14+)	169
100RU 170	6.715	16+				170
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100RU 171				6.885	(16-)	171
100RU 172				7.204	(17-)	172
100RU 173				7.409	(16+)	173

100RU 174		7.827	18+				174
100RU 175					8.018	(18-)	175
100RU 176					8.451	(18+)	176
100RU 177					8.459	(19-)	177
100RU 178		9.058	20+				178
100RU 179					9.179	(20-)	179
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S-p	=	9.188	( 0.001)				
100RU 180					9.673	2+,3+	180
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100RU 181					9.673	3(+)	181
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S-n	=	9.673	( 0.000)				
100RU 182					9.673	3(+)	182
100RU 183					9.673	3(+)	183
100RU 184					9.673	2(+)	184
100RU 185					9.763	3(+)	185
100RU 186					9.797	(21-)	186

S-p = 9.188 ( 0.001)-----  
S-n = 9.673 ( 0.000)-----  
S-2p = 15.689 ( 0.000)-----  
S-2n = 17.145 ( 0.006)-----  
S-alpha= 2.857 ( 0.000)-----

S+p = -5.474 ( 0.006)  
S+n = -6.802 ( 0.001)  
S+2p = -13.254 ( 0.001)  
S+2n = -16.022 ( 0.001)  
S+alpha = -2.593 ( 0.001)

gap p = 3.715 ( 0.006)  
gap n = 2.871 ( 0.001)  
gap 2p = 2.436 ( 0.001)  
gap 2n = 1.123 ( 0.006)  
gap alpha = 0.265 ( 0.001)