

^{111}Ru $Z = 44$ $N = 67$ adopted link ENSDF link

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

BE = 938.278 (0.010) MeV

Qbeta- = 5.519 (0.012) MeV

	Energy T	J+	J-	J-other	T1/2
111RU 1	0.000	5/2+			1 2.12 S 7
111RU 2				0.010 (1/2+)	2
111RU 3				0.039 (3/2+)	3
111RU 4	0.150	7/2+			4
111RU 5				0.185 (5/2+)	5
111RU 6				0.213 (9/2+)	6
111RU 7			0.254 7/2-		7 14 NS
111RU 8				0.280	8
111RU 9				0.306 (7/2+)	9
111RU 10			0.317 9/2-		10 5 NS
111RU 11	0.356	9/2+			11
111RU 12				0.369 (5/2+,7/2+,9/2+)	12) 7.2 NS 16
111RU 13			0.392 11/2-		13
111RU 14				0.489	14
111RU 15				0.531 (9/2+)	15
111RU 16				0.543	16
111RU 17				0.571	17
111RU 18	0.581	11/2+			18
111RU 19				0.669 (9/2-)	19
111RU 20			0.696 13/2-		20
111RU 21			0.706 11/2-		21
111RU 22				0.746 (11/2+)	22
111RU 23			0.750 15/2-		23
111RU 24				0.767	24
111RU 25				0.825	25
111RU 26	0.851	13/2+			26
111RU 27				0.856 (13/2-)	27
111RU 28				0.863	28
111RU 29				1.023 (13/2+)	29
111RU 30				1.026	30
111RU 31				1.048	31
111RU 32			1.132 15/2-		32
111RU 33	1.139	15/2+			33
111RU 34			1.227 17/2-		34
111RU 35			1.264 19/2-		35
111RU 36				1.331 (15/2+)	36
111RU 37				1.432 (17/2-)	37

111RU 38						1.435		38
111RU 39		1.457	17/2+					39
111RU 40						1.641	(17/2+)	40

111RU 41				1.758	19/2-			41
111RU 42		1.805	19/2+					42
111RU 43				1.888	21/2-			43
111RU 44				1.915	23/2-			44
111RU 45						2.030	(19/2+)	45
111RU 46						2.134		46
111RU 47		2.152	21/2+					47
111RU 48						2.368	(21/2+)	48
111RU 49						2.505	(23/2-)	49
111RU 50		2.561	23/2+					50

111RU 51				2.654	25/2-			51
111RU 52				2.676	27/2-			52
111RU 53						2.809		53
111RU 54		2.919	25/2+					54
111RU 55						2.922		55
111RU 56						3.178		56
111RU 57						3.345		57
111RU 58		3.380	27/2+					58
111RU 59						3.391		59
111RU 60				3.501	29/2-			60

111RU 61				3.522	31/2-			61
111RU 62		3.746	29/2+					62
111RU 63		4.247	31/2+					63
111RU 64				4.410	33/2-			64
111RU 65				4.439	35/2-			65
111RU 66		4.635	33/2+					66

S-n	=	4.784	(0.013)	-----				
111RU 67		5.169	35/2+					67
111RU 68				5.378	37/2-			68
111RU 69				5.409	39/2-			69
111RU 70				6.413	43/2-			70

111RU 71				6.438	41/2-			71

S-alpha=		6.665	(0.013)	-----				
111RU 72				7.497	47/2-			72
111RU 73				7.544	45/2-			73

S-p	=	13.040	(0.014)	-----				
S-n	=	4.784	(0.013)	-----				
S-2p	=	24.704	(0.015)	-----				
S-2n	=	12.190	(0.013)	-----				
S-alpha=		6.665	(0.013)	-----				

S+p = -10.235 (0.045)
S+n = -6.917 (0.014)
S+2p = -21.383 (0.012)
S+2n = -11.225 (0.039)
S+alpha = -6.065 (0.017)

gap p = 2.805 (0.047)
gap n = -2.133 (0.019)
gap 2p = 3.321 (0.019)
gap 2n = 0.964 (0.042)
gap alpha = 0.600 (0.021)