

$^{223}\text{Ra}$        $Z = 88$        $N = 135$       adopted link      ENSDF link

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

BE = 1713.824 ( 0.002) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-5.979 ( 0.003)	-----			
223RA 1	0.000	3/2+			1 11.43 D 5
223RA 2	0.030	5/2+			2
223RA 3			0.050 3/2-		3 0.63 NS 7
223RA 4				0.061 (7/2)+	4 0.6 NS AP
223RA 5				0.080 (5/2)-	5 0.24 NS 8
223RA 6				0.105	6
223RA 7			0.124 7/2-		7 0.45 NS +10-6
223RA 8	0.130	9/2+			8 0.3 NS GT
223RA 9			0.175 9/2-		9 0.20 NS 6
223RA 10	0.175	11/2+			10 0.14 NS 5
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223RA 11	0.235	5/2+			11
223RA 12			0.247 11/2-		12 0.15 NS 5
223RA 13				0.280 (7/2)+	13 0.075 NS 25
223RA 14	0.286	1/2+			14 0.77 NS 7
223RA 15				0.316 (13/2-)	15
223RA 16			0.330 3/2-		16 0.42 NS 4
223RA 17	0.334	5/2+			17 0.28 NS 4
223RA 18	0.343	3/2+			18 0.050 NS LT
223RA 19				0.343 (9/2)+	19 0.10 NS LT
223RA 20				0.351 (1/2)-	20
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223RA 21				0.369 (5/2)-	21 0.20 NS 5
223RA 22			0.376 7/2-		22 0.03 NS LT
223RA 23				0.405 (7/2)-	23
223RA 24				0.424 (11/2+)	24
223RA 25				0.432 (5/2)-	25
223RA 26				0.442 (7/2+)	26
223RA 27	0.445	9/2+			27
223RA 28				0.460 (9/2)-	28
223RA 29				0.514 (11/2-)	29
223RA 30				0.537	30
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223RA 31				0.568	31
223RA 32				0.590	32
223RA 33				0.594	33
223RA 34				0.641	34
223RA 35				0.685	35
223RA 36				0.713	36
223RA 37				0.729	37

223RA 38				0.783	(1/2,3/2,5/2)	38
223RA 39				0.784		39
223RA 40				0.787		40
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223RA 41				0.793		41
223RA 42				0.803		42
223RA 43				0.805	(1/2,3/2,5/2)	43
223RA 44				0.818		44
223RA 45				0.823		45
223RA 46				0.827	(3/2+)	46
223RA 47				0.842		47
223RA 48				0.846	(5/2)	48
223RA 49				0.859		49
223RA 50				0.868	(3/2,5/2+)	50
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223RA 51				0.879	(7/2+)	51
223RA 52				0.884		52
223RA 53				0.891		53
223RA 54				0.904		54
223RA 55				0.906		55
223RA 56				0.908		56
223RA 57				0.926	(3/2,5/2-)	57
223RA 58				0.941	(3/2-,5/2)	58
223RA 59				0.943	(3/2,5/2)	59
223RA 60				0.958	(3/2-,5/2+)	60
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223RA 61				0.971		61
223RA 62				1.000		62
223RA 63				1.015		63
223RA 64				1.020		64
223RA 65				1.025		65
223RA 66				1.029		66

S-p = 6.434 ( 0.008)-----  
S-n = 5.158 ( 0.005)-----  
S-2p = 11.816 ( 0.006)-----  
S-2n = 11.873 ( 0.005)-----  
S-alpha= -5.979 ( 0.003)-----

S+p = -4.288 ( 0.005)  
S+n = -6.479 ( 0.003)  
S+2p = -9.501 ( 0.006)  
S+2n = -11.383 ( 0.003)  
S+alpha = 6.146 ( 0.003)

gap p = 2.146 ( 0.009)  
gap n = -1.321 ( 0.006)  
gap 2p = 2.315 ( 0.008)  
gap 2n = 0.490 ( 0.006)

gap alpha = 0.167 ( 0.004)