

$^{204}\text{Rn}$        $Z = 86$        $N = 118$       [link to full NNDC output](#)

Based on ENSDF from Dec 2018, and mass evaluation from 2016

BE = 1587.237 ( 0.007) MeV

Qbeta+ = 3.905 ( 0.023) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-6.547	( 0.011)	-----		
204RN 1	0.000	0+			1 74.5 S 14
204RN 2	0.543	2+			2
204RN 3	1.132	4+			3
204RN 4				1.628 (2,3,4+)	4
204RN 5	1.773	6+			5
204RN 6	1.806	6+			6
204RN 7				1.912 (5,6+)	7
204RN 8	2.033	8+			8 5 NS LT
204RN 9	2.105	8+			9
204RN 10				2.183 (6,7)	10
-----					
204RN 11			2.219 9-		11
204RN 12				2.239 (7,8+)	12
204RN 13	2.248	8+			13
204RN 14				2.365 (8,9)	14
204RN 15				2.371 (8,9)	15
204RN 16	2.453	10+			16
204RN 17			2.462 10-		17 33.4 NS 24
204RN 18				2.540 (8+)	18
204RN 19			2.597 11-		19
204RN 20	2.637	10+			20
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204RN 21	2.681	10+			21
204RN 22	2.688	10+			22
204RN 23	2.794	9+			23
204RN 24				2.885 (11,12-)	24
204RN 25				2.895 (10+)	25
204RN 26				2.933 (10+)	26
204RN 27	3.035	12+			27 14 NS 4
-----					
S-p	= 3.097	( 0.013)	-----		
204RN 28				3.151 (12+)	28
204RN 29				3.165 (11-)	29
204RN 30				3.193 11	30
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204RN 31				3.228 (11,12+)	31
204RN 32				3.246 (10+)	32
204RN 33			3.306 13-		33
204RN 34				3.399 (11,12+)	34
204RN 35				3.411 (12+)	35

204RN	36						3.468		36
204RN	37						3.474	(11,12+)	37
204RN	38				3.507	13-			38
204RN	39						3.532	(13-)	39
204RN	40		3.677	12+					40
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204RN	41						3.737	(12,13,14+)	41
204RN	42						3.782	(12,13,14+)	42
204RN	43						3.895	(13,14,15-)	43
204RN	44		3.949	14+					44
204RN	45						3.980	(12,13,14+)	45
204RN	46						3.984	(14,15-)	46
204RN	47		4.002	14+					47
204RN	48						4.087	(14,15,16+)	48
204RN	49						4.096	(15-)	49
204RN	50						4.121	(13,14+)	50
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204RN	51						4.254	(14,15-)	51
204RN	52						4.414	(15,16,17-)	52
204RN	53						4.583	(15,16,17-)	53

S-p = 3.097 ( 0.013)-----  
S-n = 9.888 ( 0.020)-----  
S-2p = 4.607 ( 0.011)-----  
S-2n = 17.838 ( 0.019)-----  
S-alpha= -6.547 ( 0.011)-----

S+p = -0.628 ( 0.011)  
S+n = -7.811 ( 0.009)  
S+2p = -3.042 ( 0.019)  
S+2n = -17.305 ( 0.011)  
S+alpha = 7.273 ( 0.012)

gap p = 2.468 ( 0.017)  
gap n = 2.077 ( 0.022)  
gap 2p = 1.565 ( 0.022)  
gap 2n = 0.533 ( 0.022)  
gap alpha = 0.727 ( 0.016)