

^{208}Rn $Z = 86$ $N = 122$ [link to full NNDC output](#)

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

BE = 1621.208 (0.011) MeV

Qbeta+ = 2.814 (0.014) MeV

	Energy T	J+	J-	J-other	T1/2

S-alpha=	-6.261	(0.016)	-----		
208RN 1	0.000	0+			1 24.35 M 14
208RN 2	0.636	2+			2
208RN 3	1.189	4+			3
208RN 4	1.414	4+			4
208RN 5				1.578 (4,5,6)+	5
208RN 6				1.659 4+,5+	6
208RN 7	1.740	6+			7
208RN 8	1.825	6+			8
208RN 9	1.828	8+			9 487 NS 12
208RN 10	1.906	6+			10

208RN 11				2.129 6+,7+	11
208RN 12				2.163 7+,8+	12
208RN 13	2.163	10+			13
208RN 14				2.179 (5-,6+)	14
208RN 15			2.319 9-		15
208RN 16				2.320 6+,7+,8+	16
208RN 17				2.330 (5-,6,7+)	17
208RN 18				2.357 (5-,6+)	18
208RN 19				2.459 6+,7+,8+	19
208RN 20	2.465	10+			20

208RN 21				2.546 (6,7+)	21
208RN 22			2.618 10-		22 11.8 NS 7
208RN 23				2.619 6+,7+,8+	23
208RN 24			2.621 11-		24 3.5 NS 7
208RN 25	2.797	12+			25
208RN 26				2.935 13	26
208RN 27				2.954 13	27
208RN 28				3.081 14	28
208RN 29	3.111	12+			29
208RN 30			3.198 12-		30

208RN 31			3.389 13-		31
208RN 32				3.413 (15)	32
208RN 33	3.469	14+			33 3.5 NS 14
208RN 34			3.521 13-		34

S-p	= 3.717	(0.017)	-----		
208RN 35			3.779 14-		35

208RN	36				3.852	16		36
208RN	37				3.925	15-		37
208RN	38				4.066	16-		38 18.3 NS 4
208RN	39				4.525	16(+)		39
208RN	40				4.833	18-		40

208RN	41				5.178	19-		41
208RN	42				5.377	19		42
208RN	43				5.931	21(-)		43

S-p = 3.717 (0.017)-----
 S-n = 9.092 (0.014)-----
 S-2p = 6.045 (0.012)-----
 S-2n = 16.665 (0.014)-----
 S-alpha= -6.261 (0.016)-----

S+p = -1.403 (0.018)
 S+n = -7.357 (0.015)
 S+2p = -4.480 (0.015)
 S+2n = -16.092 (0.012)
 S+alpha = 7.032 (0.016)

gap p = 2.314 (0.025)
 gap n = 1.735 (0.021)
 gap 2p = 1.565 (0.019)
 gap 2n = 0.573 (0.019)
 gap alpha = 0.771 (0.022)