

^{109}Rh $Z = 45$ $N = 64$ adopted link ENSDF link

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

BE = 929.567 (0.004) MeV

Qbeta- = 2.607 (0.004) MeV

	Energy T	J+	J-	J-other	T1/2
109RH 1	0.000	7/2+			1 80.8 S 7
109RH 2	0.206	9/2+			2 41 PS LT
109RH 3	0.226	3/2+			3 1.66 US 4
109RH 4				0.258 (3/2)+	4 28.7 NS 15
109RH 5	0.359	3/2+			5 114.4 PS 13
109RH 6			0.374 1/2-		6 33.5 NS 14
109RH 7	0.410	7/2+			7 0.49 NS 3
109RH 8	0.427	5/2+			8 53 PS LT
109RH 9				0.478 (5/2)+	9 174 PS 5
109RH 10	0.531	11/2+			10
109RH 11			0.568 3/2-		11
109RH 12			0.623 5/2-		12 223 PS 8
109RH 13				0.642 (11/2+)	13
109RH 14				0.672 (5/2+)	14 57 PS LT
109RH 15			0.741 3/2-		15 57 PS LT
109RH 16	0.745	13/2+			16
109RH 17				0.768 (11/2+)	17
109RH 18			0.856 5/2-		18 51 PS LT
109RH 19				0.861 (9/2+)	19
109RH 20				0.890 (9/2+)	20
109RH 21			0.927 5/2-		21 107 PS 13
109RH 22				0.973 (7/2-)	22
109RH 23				0.981 (1/2)	23 69 PS LT
109RH 24				1.012 (3/2)+	24
109RH 25				1.026 (5/2,7/2)+	25 42 PS LT
109RH 26				1.051 (1/2,3/2,5/2-)	26 27 PS 12
109RH 27				1.053 5/2+,7/2+	27
109RH 28				1.062 (9/2-)	28
109RH 29				1.073 (13/2+)	29
109RH 30				1.096 (9/2)+	30
109RH 31				1.162 (3/2-)	31
109RH 32				1.177 3/2+,5/2,7/2+	32
109RH 33				1.203 (15/2+)	33
109RH 34				1.214 (3/2)-	34
109RH 35				1.229 (7/2+)	35
109RH 36				1.284 (7/2-)	36
109RH 37				1.292 (15/2+)	37

109RH	38				1.311	(3/2+)	38	54 PS	10
109RH	39				1.331	(5/2)+	39		
109RH	40				1.413	(1/2+)	40		

109RH	41				1.430		41		
109RH	42				1.444	(17/2+)	42		
109RH	43				1.455	(15/2+)	43		
109RH	44				1.459	(9/2)+	44		
109RH	45	1.512	7/2+				45	23 PS	LT
109RH	46				1.513	(1/2-)	46		
109RH	47				1.576	5/2+,7/2+	47	80 PS	LT
109RH	48				1.638	(3/2)-	48		
109RH	49				1.652	(13/2-)	49		
109RH	50				1.676	(17/2+)	50		

109RH	51				1.753	1/2-,3/2-	51		
109RH	52	1.929	7/2+				52	32 PS	LT
109RH	53				1.960	(19/2+)	53		
109RH	54				1.963	(5/2)+	54	32 PS	LT
109RH	55				1.972	(5/2)+	55		
109RH	56				1.976	(19/2+)	56		
109RH	57				2.015	(3/2)	57		
109RH	58				2.046	(3/2)-	58		
109RH	59				2.094	(3/2+)	59	40 PS	LT
109RH	60				2.099	(5/2+,7/2)	60		

109RH	61				2.099	(17/2-)	61		
109RH	62				2.117	(3/2+)	62		
109RH	63				2.183	(5/2+,7/2)	63		
109RH	64				2.185	(3/2+,5/2)	64		
109RH	65				2.191	(3/2+)	65	40 PS	LT
109RH	66				2.194	(3/2+,5/2)	66		
109RH	67				2.208	(5/2+,7/2)	67		
109RH	68				2.209	(3/2+,5/2)	68		
109RH	69				2.238	(3/2+,5/2)	69		
109RH	70				2.247	(5/2+,7/2)	70		

109RH	71				2.250	(21/2+)	71		
109RH	72				2.270	(5/2+,7/2)	72		
109RH	73				2.298	(19/2-)	73		
109RH	74				2.335	(17/2-)	74		
109RH	75				2.559	(21/2-)	75		
109RH	76				2.720		76		
109RH	77				2.875	(23/2-)	77		
109RH	78				3.000		78		
109RH	79				3.345		79		

S-p = 8.627 (0.010)-----
S-n = 8.039 (0.015)-----

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S-2p = 20.827 ( 0.010)-----  
S-2n = 14.278 ( 0.013)-----  
S-alpha= 5.138 ( 0.035)-----  
  
S+p = -10.621 ( 0.004)  
S+n = -5.901 ( 0.018)  
S+2p = -17.794 ( 0.004)  
S+2n = -13.447 ( 0.008)  
S+alpha = -4.453 ( 0.017)  
  
gap p = -1.994 ( 0.010)  
gap n = 2.139 ( 0.023)  
gap 2p = 3.033 ( 0.010)  
gap 2n = 0.831 ( 0.015)  
gap alpha = 0.685 ( 0.039)
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