

^{189}Re $Z = 75$ $N = 114$ adopted link ENSDF link

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

BE = 1504.782 (0.008) MeV

Qbeta- = 1.008 (0.008) MeV

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

S-alpha=	-0.990	(0.016)	-----			
189RE 1	0.000	5/2+			1	24.3 H 4
189RE 2				0.125 (9/2-)	2	
189RE 3				0.146 (7/2+)	3	
189RE 4	0.260	3/2+			4	
189RE 5				0.279	5	
189RE 6				0.303 (11/2-)	6	
189RE 7				0.471	7	
189RE 8				0.482 (5/2&7/2)+	8	
189RE 9				0.490	9	
189RE 10				0.501 (3/2+)	10	

189RE 11				0.524 (13/2-)	11	
189RE 12				0.599 (3/2+)	12	
189RE 13				0.640 (5/2+,3/2-,7/2-)	13	
189RE 14				0.670 (13/2-)	14	
189RE 15				0.670 (3/2+)	15	
189RE 16				0.697 (7/2+)	16	
189RE 17				0.738 (15/2-)	17	
189RE 18				0.852 (5/2+)	18	
189RE 19				0.877 (9/2+,11/2-,7/2-)	19	
189RE 20				0.936 (15/2-)	20	

189RE 21				1.018 (17/2-)	21	
189RE 22				1.097	22	
189RE 23				1.150 (17/2-)	23	
189RE 24	1.223	5/2+			24	
189RE 25				1.247 (19/2-)	25	
189RE 26				1.308 (5/2+)	26	
189RE 27				1.396 (3/2+,5/2-,1/2-)	27	
189RE 28			1.423	11/2-	28	
189RE 29				1.440 (19/2-)	29	
189RE 30				1.502 (11/2-)	30	

189RE 31				1.590 (21/2-)	31	
189RE 32				1.632	32	
189RE 33				1.679 (21/2-)	33	
189RE 34				1.693 (25/2-)	34	51 NS 17
189RE 35				1.771 (29/2+)	35	223 US 14
189RE 36				1.916	36	

S-p = 6.600 (0.009)-----
S-n = 7.034 (0.008)-----
S-2p = 15.661 (0.056)-----
S-2n = 12.905 (0.008)-----
S-alpha= -0.990 (0.016)-----

S+p = -8.018 (0.008)
S+n = -5.675 (0.010)
S+2p = -13.308 (0.008)
S+2n = -12.514 (0.013)
S+alpha = 1.018 (0.008)

gap p = -1.417 (0.012)
gap n = 1.358 (0.013)
gap 2p = 2.354 (0.057)
gap 2n = 0.391 (0.015)
gap alpha = 0.027 (0.018)