

$^{193}\text{Ir}$        $Z = 77$        $N = 116$       adopted link      ENSDF link

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

BE = 1532.060 ( 0.001) MeV

	Energy T	J+	J-	J-other	T1/2
-----					
S-alpha=	-1.018	( 0.008)	-----		
193IR 1	0.000	3/2+			1 STABLE
193IR 2	0.073	1/2+			2 6.09 NS 15
193IR 3			0.080	11/2-	3 10.53 D 4
193IR 4	0.139	5/2+			4 69.7 PS 10
193IR 5	0.180	3/2+			5 44 PS 15
193IR 6			0.299	7/2-	6 0.19 NS 3
193IR 7	0.358	7/2+			7 18.7 PS 7
193IR 8	0.362	5/2+			8 27 PS 3
193IR 9	0.461	3/2+			9 13.4 PS 10
193IR 10				0.469 (13/2-)	10
-----					
193IR 11				0.479 (15/2-)	11
193IR 12				0.516 (7/2)+	12
193IR 13				0.522 (9/2)+	13 13.2 PS 19
193IR 14				0.557 (1/2)+	14 34 PS 8
193IR 15	0.559	5/2+			15 1.08 PS 16
193IR 16				0.563 (9/2-)	16
193IR 17			0.598	3/2-	17 2.8 PS +28-9
193IR 18	0.621	7/2+			18 4.3 PS 3
193IR 19	0.695	5/2+			19
193IR 20	0.712	3/2+			20 15 PS 14
-----					
193IR 21			0.740	5/2-	21
193IR 22				0.807 (5/2)+	22
193IR 23				0.829 (9/2-)	23
193IR 24				0.833 (11/2-)	24
193IR 25				0.839 (9/2+)	25
193IR 26				0.849 3/2(+), 5/2(	26+)
193IR 27				0.857 (11/2)+	27 4.2 PS 4
193IR 28				0.874 3/2+, 5/2+	28
193IR 29				0.879	29
193IR 30				0.882	30
-----					
193IR 31				0.890	31
193IR 32				0.892 (9/2+)	32
193IR 33				0.918 (7/2-)	33
193IR 34				0.930 (17/2-)	34
193IR 35				0.960	35
193IR 36	0.964	1/2+			36
193IR 37				0.973 (5/2+)	37

193IR 38				0.975	(11/2-)	38
193IR 39				1.009	(11/2+)	39
193IR 40				1.020	(11/2+)	40
-----						
193IR 41				1.026	(19/2-)	41
193IR 42				1.035	(13/2+)	42
193IR 43				1.036	3/2+,5/2(+),7/2	43+
193IR 44				1.038	(5/2+,7/2+)	44
193IR 45				1.066	1/2+,3/2(+),5/2	45+
193IR 46				1.076	(3/2+)	46
193IR 47				1.078	(3/2-,5/2-)	47
193IR 48				1.126		48
193IR 49		1.131	5/2-			49
193IR 50				1.146	(9/2)-	50
-----						
193IR 51				1.163	(13/2)+	51
193IR 52				1.168	(13/2-)	52
193IR 53				1.169	(11/2+)	53
193IR 54				1.193		54
193IR 55				1.201	1/2-,3/2-	55
193IR 56				1.250	(3/2,5/2)+	56
193IR 57				1.286	5/2-,7/2-	57
193IR 58				1.359	(19/2-)	58
193IR 59				1.398		59
193IR 60				1.407		60
-----						
193IR 61				1.438	(13/2+)	61
193IR 62				1.460	(15/2)+	62
193IR 63				1.512	(3/2+)	63
193IR 64				1.528	(21/2-)	64
193IR 65				1.552		65
193IR 66				1.593	(21/2-)	66
193IR 67				1.609		67
193IR 68				1.639		68
193IR 69				1.651	(17/2+)	69
193IR 70				1.690		70
-----						
193IR 71				1.698	3/2+,5/2,7/2-	71
193IR 72				1.715	(23/2-)	72
193IR 73				1.729	(23/2-,25/2-)	73
193IR 74				1.744		74
193IR 75				1.759	(3/2)-	75
193IR 76				1.820	(7/2)-	76
193IR 77				1.824	(23/2)	77
193IR 78				1.826		78
193IR 79				1.845	(23/2)	79
193IR 80				1.866		80
-----						
193IR 81				1.894	(25/2-)	81
193IR 82				1.935	(5/2+)	82

193IR	83				1.944	25/2-,27/2-	83
193IR	84				1.970		84
193IR	85				1.999		85
193IR	86				2.029		86
193IR	87				2.052	(27/2-)	87
193IR	88				2.179	(19/2+)	88
193IR	89				2.232	(29/2+)	89
193IR	90		2.279	31/2+			90 124.8 US 21
-----							
193IR	91				2.404	(21/2+)	91

S-p = 5.943 ( 0.003)-----  
 S-n = 7.772 ( 0.002)-----  
 S-2p = 14.764 ( 0.010)-----  
 S-2n = 13.970 ( 0.002)-----  
 S-alpha= -1.018 ( 0.008)-----

S+p = -7.513 ( 0.001)  
 S+n = -6.067 ( 0.002)  
 S+2p = -12.609 ( 0.002)  
 S+2n = -13.299 ( 0.002)  
 S+alpha = 0.972 ( 0.001)

gap p = -1.570 ( 0.003)  
 gap n = 1.705 ( 0.003)  
 gap 2p = 2.155 ( 0.010)  
 gap 2n = 0.672 ( 0.003)  
 gap alpha = -0.046 ( 0.008)