

$^{124}\text{I}$        $Z = 53$        $N = 71$       adopted link      ENSDF link

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

BE = 1046.744 ( 0.002) MeV  
 Qbeta- = 0.303 ( 0.003) MeV  
 Qbeta+ = 3.160 ( 0.003) MeV

	Energy T	J+	J-	J-other	T1/2
124I	1		0.000	2-	1 4.1760 D 3
124I	2			0.055 (3+)	2 52 NS 5
124I	3			0.105	3
124I	4			0.123 (4-)	4 9.6 NS 10
124I	5			0.151 (+)	5
124I	6			0.163 (+)	6
124I	7			0.170 (+)	7
124I	8			0.184 (3-)	8
124I	9			0.213	9
124I	10			0.247	10
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124I	11			0.251	11 14 NS
124I	12			0.256	12
124I	13			0.266	13
124I	14			0.275 (5-)	14
124I	15			0.287 (6-)	15 1.6 NS 3
124I	16			0.289 (2,4)	16
124I	17			0.291 (3-,4-,5-)	17
124I	18			0.297 (3-)	18
124I	19			0.301	19
124I	20			0.311 (7-)	20 3 NS
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124I	21			0.324	21
124I	22			0.337	22
124I	23			0.346	23
124I	24			0.354	24
124I	25			0.362 (2-,3-,4-)	25
124I	26			0.370	26
124I	27			0.380	27
124I	28			0.397	28 10.0 NS 7
124I	29			0.405 (4-,5-,6-)	29
124I	30			0.427 (5+)	30
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124I	31			0.443 (4-)	31
124I	32			0.443	32
124I	33			0.447 (1-,3-)	33
124I	34			0.449	34
124I	35			0.454 (8-)	35
124I	36			0.467 (6-)	36

124I	37				0.493	(-)	37
124I	38				0.497	(1-,2-,3-)	38
124I	39				0.535	(7-)	39
124I	40				0.543		40
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124I	41				0.557	(8-)	41
124I	42				0.592		42
124I	43				0.596	(1-,2-,3-)	43
124I	44				0.605		44
124I	45				0.609		45
124I	46				0.623		46
124I	47				0.654		47
124I	48				0.665		48
124I	49				0.690	(8-)	49 14 NS
124I	50				0.725	(6+)	50
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124I	51				0.748		51
124I	52				0.756	(9-)	52
124I	53				0.762		53
124I	54				0.765		54
124I	55				0.766		55
124I	56				0.782		56
124I	57				0.783		57
124I	58				0.880	(8-)	58
124I	59				0.910		59
124I	60				0.926		60
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124I	61				0.936		61
124I	62				0.947	(9-)	62
124I	63				0.985		63
124I	64				1.079	(9-)	64
124I	65				1.081	(7+)	65
124I	66				1.135	(10-)	66
124I	67				1.245	(9-)	67
124I	68				1.297	(10+)	68
124I	69				1.304	(10-)	69
124I	70				1.305	(10-)	70
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S-alpha= 1.372 ( 0.008)-----							
124I	71				1.433	(8+)	71
124I	72				1.490	(11-)	72
124I	73				1.682	(11+)	73
124I	74				1.706	(11-)	74
124I	75				1.810	(9+)	75
124I	76				1.893	(12-)	76
124I	77				1.986	(12+)	77
124I	78				2.117	(12-)	78
124I	79				2.130	(12-)	79
124I	80				2.172	(10+)	80
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124I	81				2.344	(13+)	81
124I	82				2.359	(13-)	82
124I	83				2.562	(11+)	83
124I	84				2.570	(13-)	84
124I	85				2.682	(14+)	85
124I	86				2.736		86
124I	87				2.746	(14-)	87
124I	88				2.764		88
124I	89				2.789		89
124I	90				2.908	(15+)	90
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124I	91				3.023	(14-)	91
124I	92				3.100	(14-)	92
124I	93				3.206	(16+)	93
124I	94				3.383	(15-)	94
124I	95				3.485	(15-)	95
124I	96				3.745	(16-)	96
124I	97				3.860		97
124I	98				3.888	(17+)	98
124I	99				4.094	(17+)	99
124I	100				4.212	(17-)	100
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124I	101				4.366	(18+)	101
124I	102				4.396	(17-)	102
124I	103				4.652	(18-)	103
124I	104				4.864	(19-)	104
124I	105				4.968	(19+)	105
124I	106				5.343	(20+)	106
S-p	=	5.482	(	0.003)	-----		
124I	107				5.516		107
124I	108				5.556	(21-)	108

S-p = 5.482 ( 0.003)-----  
S-n = 7.493 ( 0.004)-----  
S-2p = 13.608 ( 0.003)-----  
S-2n = 17.428 ( 0.006)-----  
S-alpha= 1.372 ( 0.008)-----

S+p = -7.124 ( 0.003)  
S+n = -9.543 ( 0.003)  
S+2p = -11.564 ( 0.011)  
S+2n = -16.689 ( 0.004)  
S+alpha = -0.992 ( 0.006)

gap p = -1.641 ( 0.004)  
gap n = -2.050 ( 0.005)  
gap 2p = 2.044 ( 0.011)  
gap 2n = 0.739 ( 0.007)  
gap alpha = 0.380 ( 0.010)