

^{53}Fe $Z = 26$ $N = 27$ adopted link ENSDF link

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

BE = 458.386 (0.002) MeV

Qbeta+ = 3.743 (0.002) MeV

	Energy T	J+	J-	J-other	T1/2
53FE 1			0.000	7/2-	1 8.51 M 2
53FE 2			0.741	3/2-	2 63.5 NS 14
53FE 3			0.774	1/2-	3 2.0 NS 2
53FE 4			1.328	9/2-	4 17 FS 7
53FE 5			1.423	5/2-	5 2.8 PS 7
53FE 6			1.696	7/2-	6 1.4 PS +21-7
53FE 7				1.896	7
53FE 8			2.043	3/2-	8 0.24 PS 5
53FE 9	2.315	1/2+			9
53FE 10			2.339	11/2-	10 53 FS 12
53FE 11			2.405	5/2-	11
53FE 12				2.479	12 35 FS 8
53FE 13			2.557	9/2-	13
53FE 14				2.680	14 3/2+,5/2+
53FE 15				2.829	15 35 FS 14
53FE 16			2.843	11/2-	16
53FE 17			2.845	7/2-	17 33 FS 12
53FE 18				2.892	18
53FE 19				2.915	19 7/2-,5/2-
53FE 20				2.926	20 (1/2+)
53FE 21				2.944	21 3/2-,1/2-
53FE 22	2.967	1/2+			22 78 FS 15
53FE 23			3.040	19/2-	23 2.54 M 2
53FE 24			3.176	13/2-	24 132 FS LT
53FE 25			3.312	11/2-	25
53FE 26			3.333	7/2-	26
53FE 27	3.399	3/2+			27
53FE 28			3.463	15/2-	28
53FE 29			3.567	7/2-	29
53FE 30				3.697	30 1/2-,3/2-
53FE 31			3.774	13/2-	31
53FE 32				3.776	32 5/2-,7/2-
53FE 33				3.803	33 1/2-,3/2-
53FE 34				3.852	34 1/2-,3/2-
53FE 35				3.892	35 7/2-,5/2-
53FE 36			4.005	17/2-	36
53FE 37				4.149	37

53FE 38				4.170	3/2+,5/2+	38
53FE 39		4.250	7/2-			39
53FE 40				4.253	(13/2-)	40

53FE 41				4.451		41
53FE 42		4.555	15/2-			42
53FE 43				4.557	7/2-,5/2-	43
53FE 44				4.575	3/2+,5/2+	44
53FE 45				4.604		45
53FE 46				4.637	7/2-,5/2-	46
53FE 47				4.671		47
53FE 48				4.698		48
53FE 49				4.764		49
53FE 50				4.785	13/2	50

53FE 51				4.801		51
53FE 52				4.813		52
53FE 53				4.839	(7/2-,5/2-)	53
53FE 54				4.884	7/2-,5/2-	54
53FE 55				4.931	(15/2-)	55
53FE 56				5.093		56
53FE 57				5.185	3/2+,5/2+	57
53FE 58		5.339	17/2-			58
53FE 59				5.340	13/2-,15/2-	59
53FE 60				5.454		60

53FE 61				5.478	3/2+,5/2+	61
53FE 62				5.536		62
53FE 63				5.568	3/2+,5/2+	63
53FE 64				5.606		64
53FE 65				5.672		65
53FE 66				5.722		66
53FE 67				5.752		67
53FE 68		5.897	15/2-			68
53FE 69				5.960		69
53FE 70				5.994		70

53FE 71				6.072		71
53FE 72				6.110		72
53FE 73				6.152		73
53FE 74				6.179		74
53FE 75				6.294		75
53FE 76		6.365	21/2-			76 2.8 PS LT
53FE 77	6.388 1/2+					77
53FE 78				6.419		78
53FE 79				6.449	3/2+,5/2+	79
53FE 80	6.504 1/2+					80

53FE 81				6.528	5/2-,7/2-	81
53FE 82				6.569	(3/2)-	82

53FE 83				6.689	17/2-			83
53FE 84						6.696	3/2+,5/2+	84
53FE 85						6.800		85
53FE 86				6.829	23/2-			86
53FE 87						6.831		87
53FE 88				6.935	17/2-			88
53FE 89		6.942		1/2+				89
53FE 90		7.028		1/2+				90

53FE 91		7.122		1/2+				91
53FE 92						7.139	(19/2-)	92
53FE 93						7.181	(21/2)-	93
53FE 94						7.213	3/2+,5/2+	94
53FE 95						7.214		95
53FE 96						7.263	(3/2)+	96
53FE 97						7.304		97
53FE 98				7.328	25/2-			98 18.2 PS 22
53FE 99						7.364	3/2+,5/2+	99

S-alpha=		8.040		(0.003)	-----			
S-p	=	7.525		(0.002)	-----			
53FE 100				8.274	25/2-			100 0.14 PS LT

53FE 101				8.544	23/2-			101
53FE 102				9.098	27/2-			102 0.14 PS LT
53FE 103						9.288	(25/2-)	103
53FE 104						9.550	(25/2)	104
53FE 105				9.881	27/2-			105 0.14 PS LT

S-p	=	7.525		(0.002)	-----			
S-n	=	10.687		(0.002)	-----			
S-2p	=	14.075		(0.002)	-----			
S-2n	=	26.901		(0.002)	-----			
S-alpha=		8.040		(0.003)	-----			
S+p	=	-4.352		(0.002)				
S+n	=	-13.378		(0.002)				
S+2p	=	-8.966		(0.002)				
S+2n	=	-22.677		(0.002)				
S+alpha	=	-7.561		(0.002)				
gap p	=	3.174		(0.002)				
gap n	=	-2.692		(0.002)				
gap 2p	=	5.108		(0.002)				
gap 2n	=	4.224		(0.003)				
gap alpha	=	0.479		(0.003)				