^{58}Fe $Z = 26$ $N = 32$ adopted link ENSDF link

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

BE = 509.951 (0.000) MeV

	Energy	T	J+		J-		J-other		T1/2	
58FE 1	0.000		0+					1	STABLE	
58FE 2	0.811		2+					2	6.54 PS	19
58FE 3	1.675		2+					3	1.6 PS	4
58FE 4	2.077		4+					4	0.28 PS	4
58FE 5	2.134		3+					5	2.2 PS	7
58FE 6	2.258		0+					6	2.5 PS	GT
58FE 7	2.600		4+					7	0.55 PS	18
58FE 8	2.782		1+					8	0.18 PS	3
58FE 9							2.865 (5)	9	3.1 PS	14
58FE 10	2.876		2+					10	0.095 PS	14
58FE 11							2.970 (5-)	11		
58FE 12	3.084		2+					12	0.031 PS	6
58FE 13	3.134		4+					13		
58FE 14	3.233		2+					14	0.22 PS	5
58FE 15	3.244		0+					15	31 FS	+67-14
58FE 16	3.389		2+					16		
58FE 17							3.450 (4+)	17	0.36 PS	+13-8
58FE 18	3.538		1+					18	8 FS	3
58FE 19	3.543		2+					19		
58FE 20	3.597		6+					20	0.20 PS	7
58FE 21	3.630		2+					21	8 FS	4
58FE 22							3.754 (4)+	22	0.013 PS	LT
58FE 23							3.789 (5-)	23	0.026 PS	+6-4
58FE 24	3.854		2+					24		
58FE 25				3.861	3-			25	0.090 PS	+35-21
58FE 26	3.880		1+					26	4 FS	LT
58FE 27	3.886		6+					27	0.48 PS	10
58FE 28							3.902 (3)+	28	0.031 PS	7
58FE 29	4.011		2+					29		
58FE 30	4.015		1+					30	0.008 PS	+4-3
58FE 31	4.088		4+					31	0.06 PS	+8-3
58FE 32	4.139		1+					32	2.8 FS	21
58FE 33	4.158		0+					33		
58FE 34							4.215 (5+)	34	0.45 PS	+14-10
58FE 35				4.230	4-			35		
58FE 36							4.237 (2+)	36		
58FE 37	4.298		2+					37	2.8 FS	21
58FE 38	4.313		2+					38	11 FS	7

58FE	39	4.323	1+						39		
58FE	40					4.340	(5-,4+)		40		
58FE	41	4.348	2+						41		
58FE	42					4.350	(0+)		42		
58FE	43	4.353	1+						43		
58FE	44					4.398			44		
58FE	45					4.438	2-,3-		45		
58FE	46					4.440	3-,4-		46		
58FE	47	4.444	1+						47	6 FS	+28-6
58FE	48					4.450	(0+)		48		
58FE	49			4.468	3-				49		
58FE	50					4.493			50		
58FE	51					4.514	(3+,2+)		51		
58FE	52					4.530	1,2		52		
58FE	53	4.550	1+						53	21 FS	7
58FE	54					4.590	(2+,3,4+)		54		
58FE	55					4.610	3-,4-		55		
58FE	56	4.620	2+						56		
58FE	57					4.661			57		
58FE	58					4.669	(7+)		58	0.38 PS	+12-6
58FE	59					4.711	(2)+		59		
58FE	60			4.720	1-				60		
58FE	61					4.809	(5-)		61		
58FE	62					4.834	1+,2+		62		
58FE	63	4.890	2+						63		
58FE	64	4.937	2+						64		
58FE	65					4.990	(2+,3-)		65		
58FE	66	5.000	1+						66	3.0 FS	10
58FE	67			5.020	5-				67		
58FE	68	5.060	2+						68		
58FE	69	5.138	0+						69		
58FE	70					5.164			70		
58FE	71	5.213	2+						71		
58FE	72					5.221	1,2		72	0.38 PS	LT
58FE	73					5.236			73		
58FE	74			5.254	3-				74		
58FE	75					5.295	(1+,2,3+)		75	3.5 FS	28
58FE	76					5.315	3-,4-		76		
58FE	77	5.343	8+						77	0.42 PS	+10-8
58FE	78					5.370	(4+,5-)		78		
58FE	79					5.400	-		79		
58FE	80	5.406	0+						80		
58FE	81					5.418	(1+,2,3-)		81	0.7 FS	LT
58FE	82					5.462	(2+)		82		
58FE	83					5.503	(8+)		83	0.14 PS	LT

58FE	84					5.506		84	
58FE	85	5.523	0+					85	
58FE	86	5.620	0+					86	
58FE	87	5.655	2+					87	
58FE	88					5.716	3-,4-	88	
58FE	89	5.734	2+					89	
58FE	90					5.763		90	
58FE	91					5.788	(2+,3-)	91	
58FE	92					5.817	(2-,3-)	92	
58FE	93	5.830	0+					93	
58FE	94					5.832	(9+)	94	0.40 PS +15-4
58FE	95					5.857	(2-,3-)	95	
58FE	96					5.880	(2+,3-)	96	
58FE	97					5.887	(0-,1-)	97	
58FE	98					5.914		98	
58FE	99					5.952	(2+)	99	
58FE	100					5.989		100	
58FE	101					6.030		101	
58FE	102					6.033	(9+)	102	
58FE	103					6.054		103	
58FE	104					6.100	3-,4-	104	
58FE	105	6.146	2+					105	
58FE	106					6.168	(0+)	106	
58FE	107					6.202	3-,4-	107	
58FE	108					6.238	(1-,2+)	108	
58FE	109					6.279	(1-,2+)	109	
58FE	110					6.283	(9+)	110	0.14 PS LT
58FE	111					6.295	(5-)	111	
58FE	112					6.328		112	
58FE	113					6.348		113	
58FE	114					6.370		114	
58FE	115					6.400	(6+,7-)	115	
58FE	116			6.436	1-			116	
58FE	117	6.450	0+					117	
58FE	118					6.476		118	
58FE	119					6.532		119	
58FE	120					6.558		120	
58FE	121					6.580	(6+)	121	
58FE	122					6.593		122	
58FE	123					6.615		123	
58FE	124					6.636		124	
58FE	125	6.650	0+					125	
58FE	126					6.679	(3-,2-)	126	
58FE	127					6.741		127	
58FE	128	6.760	0+					128	
58FE	129					6.771		129	

58FE 130				6.789		130	
58FE 131				6.842		131	
58FE 132				6.870	(5-)	132	
58FE 133			6.909	1-		133	
58FE 134	6.953	2+				134	
58FE 135				7.023		135	
58FE 136				7.028		136	
58FE 137				7.048	(1-,2+)	137	
58FE 138				7.060		138	
58FE 139				7.094		139	
58FE 140	7.124	0+				140	
58FE 141			7.166	1-		141	
58FE 142				7.199		142	
58FE 143				7.230		143	
58FE 144				7.243	(10+)	144	0.14 PS LT
58FE 145				7.272		145	
58FE 146				7.289		146	
58FE 147				7.351		147	
58FE 148				7.380	(8+)	148	
58FE 149				7.429	(0-,1-)	149	
58FE 150				7.457	(10+)	150	
58FE 151				7.457		151	
58FE 152				7.473		152	
58FE 153				7.492		153	
58FE 154				7.507		154	
58FE 155				7.534		155	
58FE 156				7.567		156	
58FE 157				7.578		157	
58FE 158				7.585		158	
58FE 159				7.605		159	
58FE 160				7.628		160	
S-alpha=	7.645 (0.000)						
58FE 161				7.653		161	
58FE 162				7.680		162	
58FE 163				7.690		163	
58FE 164				7.731	(11+)	164	0.14 PS LT
58FE 165				7.734		165	
58FE 166				7.775		166	
58FE 167				7.797		167	
58FE 168				7.824		168	
58FE 169				7.846		169	
58FE 170				7.883		170	
58FE 171				7.901		171	
58FE 172				7.918		172	
58FE 173				7.946		173	

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 58FE 174 |               |               |   7.974                   174
 58FE 175 |               |               |   7.997                   175
 58FE 176 |               |               |   8.018                   176
 58FE 177 |               |               |   8.045                   177
 58FE 178 |               |               |   8.065                   178
 58FE 179 |               |               |   8.084                   179
 58FE 180 |               |               |   8.100                   180
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 58FE 181 |               |               |   8.121                   181
 58FE 182 |               |               |   8.137                   182
 58FE 183 |               |               |   8.157                   183
 58FE 184 |               |               |   8.182                   184
 58FE 185 |               |               |   8.310     (6+)          185
 58FE 186 |               |               |   9.445     (12+)         186
 58FE 187 |               |               |   9.939                   187
 58FE 188 |               |               |   9.984     (12)          188


S-p    =  11.958 ( 0.002)-----------------------------------------------------------------------
S-n    =  10.044 ( 0.000)-----------------------------------------------------------------------
S-2p   =  21.448 ( 0.001)-----------------------------------------------------------------------
S-2n   =  17.691 ( 0.000)-----------------------------------------------------------------------
S-alpha=   7.645 ( 0.000)-----------------------------------------------------------------------

S+p       =  -7.364 ( 0.001)
S+n       =  -6.581 ( 0.000)
S+2p      = -16.896 ( 0.000)
S+2n      = -15.401 ( 0.003)
S+alpha   =  -7.016 ( 0.001)

gap p     =   4.594 ( 0.002)
gap n     =   3.463 ( 0.001)
gap 2p    =   4.552 ( 0.001)
gap 2n    =   2.290 ( 0.003)
gap alpha =   0.629 ( 0.001)
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