

$^{196}\text{Au}$        $Z = 79$        $N = 117$       adopted link      ENSDF link

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

BE = 1551.312 ( 0.003) MeV  
 Qbeta- = 0.687 ( 0.004) MeV  
 Qbeta+ = 1.506 ( 0.003) MeV

	Energy T	J+	J-	J-other	T1/2
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S-alpha=	-1.272 ( 0.003)-----				
196AU 1			0.000 2-		1 6.1669 D 6
196AU 2			0.006 1-		2
196AU 3				0.042 0-,1-,2-	3
196AU 4	0.085	5+			4 8.1 S 2
196AU 5				0.163 2-,3-	5
196AU 6				0.166 1-,2-	6 291 PS 50
196AU 7				0.167 1-,2-	7
196AU 8				0.198 1-,2-	8
196AU 9			0.213 4-		9 1.79 NS 15
196AU 10	0.232	7+			10 1.65 NS 15
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196AU 11			0.235 3-		11 200 PS LE
196AU 12				0.253 1-,2-	12
196AU 13				0.259 1-,2-	13
196AU 14				0.288 2-,3-	14
196AU 15				0.299 1-,2-	15
196AU 16				0.307 1-,2-	16
196AU 17			0.324 1-		17
196AU 18			0.326 1-		18
196AU 19				0.348 5+,6+	19
196AU 20			0.349 2-		20
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196AU 21				0.356 10-,1-,2-,3-	21
196AU 22				0.365	22
196AU 23				0.370 6+,7+	23 30 NS LT
196AU 24			0.376 3-		24
196AU 25	0.388	3+			25
196AU 26	0.401	6+			26 30 NS LT
196AU 27				0.404 3-,4-	27
196AU 28				0.408 2-,3-	28
196AU 29			0.414 2-		29
196AU 30	0.421	8+			30 2.0 NS 2
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196AU 31				0.424 4+,5+	31
196AU 32			0.456 2-		32
196AU 33			0.462 2-		33
196AU 34				0.467 3+,4+	34
196AU 35			0.480 2-		35

196AU 36				0.490	3-				36
196AU 37				0.491	2-				37
196AU 38							0.492		38
196AU 39		0.500	5+						39
196AU 40							0.502		40
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196AU 41		0.503	5+						41
196AU 42							0.518	4+,5+	42
196AU 43				0.521	3-				43
196AU 44				0.538	2-				44
196AU 45							0.542	1-,2-	45
196AU 46							0.551	3+,4+,5+,6+	46
196AU 47							0.552		47
196AU 48				0.564	2-				48
196AU 49				0.565	2-				49
196AU 50							0.569		50
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196AU 51							0.570	2-,3-,4-	51
196AU 52							0.571	(4-)	52
196AU 53							0.576		53
196AU 54							0.588	5+,6+,7+,8+	54
196AU 55				0.596	12-				55 9.6 H 1
196AU 56							0.598	5+,6+	56
196AU 57							0.625	3-,4-,5-	57
196AU 58							0.627		58
196AU 59				0.636	2-				59
196AU 60							0.637		60
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196AU 61				0.638	2-				61
196AU 62							0.641		62
196AU 63							0.645	5+,6+	63
196AU 64							0.646		64
196AU 65							0.651	2-,3-	65
196AU 66							0.658	(5+)	66
196AU 67				0.663	3-				67
196AU 68				0.669	3-				68
196AU 69							0.673		69
196AU 70				0.680	4-				70
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196AU 71				0.689	2-				71
196AU 72							0.703	2-,3-,4-	72
196AU 73		0.704	3+						73
196AU 74				0.709	2-				74
196AU 75				0.714	2-				75
196AU 76							0.714		76
196AU 77							0.716	1-,2-,3-,4-	77
196AU 78							0.720	2-,3-	78
196AU 79							0.721	(5+)	79
196AU 80				0.726	2-				80
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196AU 81		0.733	1-				81
196AU 82					0.748	3-,4-,5-	82
196AU 83					0.749		83
196AU 84		0.751	2-				84
196AU 85					0.753		85
196AU 86		0.761	2-				86
196AU 87					0.769	2-,3-,4-	87
196AU 88					0.781		88
196AU 89		0.786	2-				89
196AU 90		0.798	2-				90
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196AU 91		0.800	4-				91
196AU 92					0.807	1-,2-,3-	92
196AU 93					0.808		93
196AU 94					0.813		94
196AU 95					0.815	3-,4-	95
196AU 96					0.816	(2-)	96
196AU 97					0.817		97
196AU 98					0.819		98
196AU 99					0.830	5+,6+,7+	99
196AU 100					0.841	5+,6+,7+	100
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196AU 101					0.848		101
196AU 102					0.848		102
196AU 103					0.850	3-,4-,5-	103
196AU 104					0.851	(3-,4-)	104
196AU 105					0.853		105
196AU 106					0.853		106
196AU 107					0.854		107
196AU 108					0.857	2-,3-,4-	108
196AU 109		0.870	2-				109
196AU 110					0.876		110
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196AU 111					0.877		111
196AU 112		0.882	3-				112
196AU 113					0.883	(4-,5-)	113
196AU 114					0.883		114
196AU 115		0.893	3-				115
196AU 116		0.896	2-				116
196AU 117		0.902	1-				117
196AU 118					0.907		118
196AU 119					0.908	2-,3-,4-	119
196AU 120					0.922	3-,4-,5-	120
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196AU 121		0.926	2-				121
196AU 122					0.932		122
196AU 123					0.932		123
196AU 124					0.934		124
196AU 125					0.938	3-,4-,5-	125
196AU 126					0.940		126

196AU 127				0.944		127
196AU 128				0.946		128
196AU 129				0.949	(5+,6+,7+)	129
196AU 130				0.951	2-,3-,4-	130
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196AU 131				0.962	0-,1-,2-,3-	131
196AU 132				0.967	2-,3-,4-,5-	132
196AU 133				0.969	2-,3-,4-,5-	133
196AU 134				0.980		134
196AU 135				0.989	2-,3-,4-,5-	135
196AU 136		0.991	3-			136
196AU 137				0.992		137
196AU 138				0.992		138
196AU 139				0.993		139
196AU 140				0.996		140
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196AU 141		1.004	1-			141
196AU 142				1.004	5+,6+,7+,8+	142
196AU 143		1.015	1-			143
196AU 144				1.018	1-,2-,3-	144
196AU 145				1.019		145
196AU 146				1.025	2-,3-,4-,5-	146
196AU 147		1.046	2-			147
196AU 148				1.046		148
196AU 149				1.053		149
196AU 150				1.053	0-,1-	150
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196AU 151				1.053		151
196AU 152				1.056	2-,3-,4-	152
196AU 153				1.058		153
196AU 154				1.066	2-,3-	154
196AU 155				1.071	2-,3-,4-,5-	155
196AU 156				1.075	2-,3-,4-,5-	156
196AU 157				1.089	2-,3-	157
196AU 158				1.093		158
196AU 159				1.095	2-,3-	159
196AU 160				1.096		160
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196AU 161		1.101	1-			161
196AU 162				1.108	0-,1-,2-	162
196AU 163				1.112	2-,3-	163
196AU 164				1.121	0-,1-,2-	164
196AU 165		1.121	3-			165
196AU 166				1.134	2-,3-	166
196AU 167				1.140	2-,3-	167
196AU 168				1.147	5+,6+	168
196AU 169				1.153	1-,2-,3-	169
196AU 170				1.157		170
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196AU 171		1.166	3-			171

196AU 172				1.175	2-,3-,4-	172
196AU 173				1.175	5+,6+,7+,8+	173
196AU 174		1.189	3-			174
196AU 175				1.196		175
196AU 176				1.198	1-,2-,3-	176
196AU 177				1.203	2-,3-,4-,5-	177
196AU 178				1.207	2-,3-,4-,5-	178
196AU 179				1.214		179
196AU 180				1.217		180
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196AU 181		1.223	3-			181
196AU 182				1.229		182
196AU 183		1.237	3-			183
196AU 184				1.244		184
196AU 185				1.249	2-,3-	185
196AU 186				1.254	2-,3-,4-	186
196AU 187				1.269	0-,1-,2-	187
196AU 188		1.270	3-			188
196AU 189		1.279	2-			189
196AU 190				1.281		190
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196AU 191				1.292	2-,3-,4-	191
196AU 192				1.296		192
196AU 193				1.296	3-,4-,5-	193
196AU 194				1.298		194
196AU 195				1.310	2-,3-,4-	195
196AU 196				1.318	3-,4-	196
196AU 197				1.325	1-,2-	197
196AU 198				1.326	4+,5+	198
196AU 199				1.332	3-,4-,5-	199
196AU 200				1.338	3-,4-,5-	200
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196AU 201				1.348	2-,3-,4-	201
196AU 202				1.351		202
196AU 203				1.355	2-,3-,4-,5-	203
196AU 204				1.362	2-,3-	204
196AU 205				1.364		205
196AU 206				1.387	2-,3-,4-	206
196AU 207				1.391	(0-,1-)	207
196AU 208				1.403	(2-,3-,4-)	208
196AU 209				1.416	(0-,1-)	209
196AU 210				1.427	0-,1-	210
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196AU 211				1.431		211
196AU 212				1.432		212
196AU 213				1.457		213
196AU 214				1.476	2-,3-,4-	214
196AU 215				1.492	5+,6+,7+	215
196AU 216				1.495	0-,1-	216
196AU 217				1.505	0-,1-	217

196AU 218			1.513	(2-,3-,4-)	218
196AU 219			1.523	(2-,3-,4-)	219
196AU 220			1.534	(2-,3-,4-)	220
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196AU 221			1.552	2-,3-,4-	221
196AU 222			1.569		222
196AU 223			1.586		223
196AU 224			1.599		224
196AU 225			1.632		225
196AU 226			1.634		226
196AU 227			1.640		227
196AU 228			1.657		228
196AU 229			1.665		229
196AU 230			1.673		230
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196AU 231			1.720	2-,3-,4-	231
196AU 232			1.880	2-,3-,4-	232

S-p = 5.634 ( 0.003)-----  
 S-n = 6.643 ( 0.003)-----  
 S-2p = 13.185 ( 0.003)-----  
 S-2n = 15.069 ( 0.004)-----  
 S-alpha= -1.272 ( 0.003)-----

S+p = -6.690 ( 0.004)  
 S+n = -8.072 ( 0.003)  
 S+2p = -10.968 ( 0.008)  
 S+2n = -14.585 ( 0.003)  
 S+alpha = 1.667 ( 0.006)

gap p = -1.057 ( 0.005)  
 gap n = -1.429 ( 0.004)  
 gap 2p = 2.217 ( 0.009)  
 gap 2n = 0.485 ( 0.005)  
 gap alpha = 0.395 ( 0.007)