

^{60}Ni $Z = 28$ $N = 32$ adopted link ENSDF link

Based on ensdf_240402 (Apr 2024), and mass evaluation from 2020

BE = 526.847 (0.000) MeV

		Energy T	J+		J-		J-other	T1/2	

60NI	1	0.000	0+					1	STABLE
60NI	2	1.333	2+					2	0.735 PS 21
60NI	3	2.159	2+					3	0.59 PS 17
60NI	4	2.285	0+					4	1.5 PS GT
60NI	5	2.506	4+					5	3.3 PS 10
60NI	6	2.626	3+					6	0.6 PS AP
60NI	7	3.120	4+					7	0.24 PS 10
60NI	8	3.124	2+					8	0.23 PS +17-10
60NI	9	3.186	(3+)					9	0.14 PS 4
60NI	10	3.194	1+					10	53 FS 14

60NI	11	3.269	2+					11	71 FS 21
60NI	12	3.318	0+					12	0.24 PS +28-11
60NI	13						3.381	13	0.23 PS +35-11
60NI	14	3.393	2+					14	0.13 PS +6-4
60NI	15	3.588	0+					15	40 PS LT
60NI	16	3.619	3+					16	0.2 PS +5-1
60NI	17	3.671	4+					17	0.06 PS 4
60NI	18	3.703	4+					18	
60NI	19	3.731	4+					19	0.21 PS +29-9
60NI	20	3.734	2+					20	0.11 PS 4

60NI	21						3.798 1	21	118 FS 15
60NI	22	3.871	2+					22	3.0 PS GT
60NI	23	3.887	2+					23	0.07 PS +7-4
60NI	24						3.895	24	59 FS 25
60NI	25						3.908 1	25	27 FS 5
60NI	26						3.925 2+,3+	26	0.19 PS +19-8
60NI	27	4.006	2+					27	21 FS 7
60NI	28	4.020	1+					28	12 FS 3
60NI	29						4.035	29	25 FS 14
60NI	30				4.040	3-		30	22 FS 10

60NI	31						4.078 1+,2+	31	12 FS GT
60NI	32	4.112	2+					32	
60NI	33	4.166	5+					33	0.8 PS 4
60NI	34	4.186	(4+)					34	
60NI	35						4.191	35	
60NI	36	4.265	6+					36	0.45 PS +11-21
60NI	37						4.294	37	

60NI 38						4.301		38	
60NI 39		4.319	2+					39	
60NI 40						4.336 2		40	

60NI 41		4.341	(0+)					41	29 FS +31-21
60NI 42		4.356	2+					42	45 FS +26-18
60NI 43						4.400		43	
60NI 44		4.407	5+					44	
60NI 45						4.451		45	
60NI 46		4.493	2+					46	16 FS 14
60NI 47		4.534	2+					47	
60NI 48						4.548 1+,2+		48	
60NI 49		4.577	2+					49	18 FS LT
60NI 50		4.579	(4+)					50	

60NI 51						4.613		51	
60NI 52						4.760 1,2		52	
60NI 53						4.768		53	0.05 PS +6-3
60NI 54						4.779		54	
60NI 55						4.800		55	
60NI 56		4.844	2+					56	6.9 FS 21
60NI 57						4.849 1,2,3		57	
60NI 58						4.859		58	
60NI 59						4.891		59	
60NI 60						4.929		60	

60NI 61						4.953		61	
60NI 62		4.958	4+					62	61 FS 21
60NI 63						4.971		63	0.06 PS +5-3
60NI 64		4.986	(6+)					64	1.0 PS +25-7
60NI 65					5.014	(5-)		65	
60NI 66						5.048 1,2		66	
60NI 67					5.065	(1-)		67	2.98 FS 28
60NI 68						5.091		68	
60NI 69						5.106		69	0.03 PS +5-3
60NI 70					5.110	8-		70	

60NI 71		5.121	4+					71	
60NI 72						5.127		72	
60NI 73						5.133		73	
60NI 74		5.149	6+					74	
60NI 75						5.174		75	
60NI 76						5.192		76	
60NI 77						5.205		77	16 FS 16
60NI 78		5.236	5(+)					78	
60NI 79		5.244	4+					79	0.05 PS +5-3
60NI 80						5.264		80	

60NI 81						5.289		81	
60NI 82						5.307		82	

60NI 83						5.318		83
60NI 84				5.349		7-		84 250 PS 21
60NI 85						5.379		85
60NI 86				5.396		3-		86
60NI 87						5.411		87
60NI 88						5.428		88
60NI 89		5.447		2+				89
60NI 90		5.450		6+				90

60NI 91						5.476		91
60NI 92		5.530		(2+)				92 20 FS 14
60NI 93						5.612		93
60NI 94						5.642		94
60NI 95						5.650		95
60NI 96		5.663		7+				96 0.7 PS +21-3
60NI 97						5.672		97
60NI 98						5.711		98
60NI 99						5.741		99
60NI 100						5.780		100

60NI 101		5.785		(7+)				101
60NI 102		5.799		2+				102
60NI 103						5.831		103
60NI 104						5.860		104
60NI 105						5.878		105
60NI 106				5.902		6-		106
60NI 107						5.902		107
60NI 108						5.919		108
60NI 109						5.931	1	109 21 FS 6
60NI 110						5.946		110

60NI 111						5.968		111
60NI 112				5.973		5-		112
60NI 113						5.992		113
60NI 114						6.028		114
60NI 115						6.054		115
60NI 116						6.067		116
60NI 117						6.077	(8)	117
60NI 118						6.111		118
60NI 119		6.112		7+				119
60NI 120						6.142		120

60NI 121				6.181		1-		121 1.80 FS 28
60NI 122						6.192		122
60NI 123		6.229		(2+)				123 20 FS 4
60NI 124						6.239		124
60NI 125				6.278		(6-)		125

S-alpha=		6.291		(0.000)				
60NI 126						6.292		126
60NI 127		6.327		2+				127

60NI 128						6.362		128		
60NI 129						6.382	1	129	12 FS	3
60NI 130						6.403		130		

60NI 131						6.431		131		
60NI 132		6.461		8+				132	1.2 PS	+16-5
60NI 133						6.465	1-	133	1.7 FS	5
60NI 134								134		
60NI 135		6.515		1+				135	3.0 FS	5
60NI 136								136		
60NI 137								137		
60NI 138								138		
60NI 139						6.588	1-	139	1.25 FS	28
60NI 140								140		

60NI 141								141		
60NI 142								142		
60NI 143								143		
60NI 144								144		
60NI 145								145		
60NI 146						6.719	1-	146	6.7 FS	13
60NI 147								147	6 FS	3
60NI 148								148		
60NI 149		6.761		7(+)				149		
60NI 150								150		

60NI 151								151		
60NI 152						6.811	9-	152	0.55 PS	28
60NI 153								153		
60NI 154								154		
60NI 155						6.837	8-	155	0.6 PS	+5-2
60NI 156								156		
60NI 157								157		
60NI 158		6.912		1+				158	1.46 FS	28
60NI 159								159		
60NI 160								160		

60NI 161		7.028		8+				161		
60NI 162						7.039	1-	162	1.3 FS	4
60NI 163								163		
60NI 164								164		
60NI 165								165		
60NI 166								166		
60NI 167								167		
60NI 168		7.250		8+				168		
60NI 169								169		
60NI 170								170		

60NI 171								171		
60NI 172								172		

60NI 173		7.380	8+						173
60NI 174							7.414		174
60NI 175		7.433	9+						175
60NI 176					7.466	(7-)			176
60NI 177		7.473	1+						177 2.1 FS 3
60NI 178							7.495		178
60NI 179		7.531	8+						179
60NI 180					7.550	8-			180

60NI 181							7.552		181
60NI 182					7.560	1-			182 6.5 FS 22
60NI 183							7.570		183
60NI 184							7.590		184
60NI 185							7.627		185
60NI 186					7.647	1-			186 0.27 FS 3
60NI 187		7.658	1+						187 0.97 FS 14
60NI 188							7.684		188
60NI 189					7.690	1-			189 0.208 FS 28
60NI 190					7.691	(9-)			190

60NI 191		7.733	8+						191
60NI 192					7.748	1-			192 0.55 FS 21
60NI 193					7.760	8-			193
60NI 194		7.762	1+						194 1.7 FS 4
60NI 195							7.799		195
60NI 196							7.813		196
60NI 197							7.818		197
60NI 198		7.850	1+						198 1.66 FS 28
60NI 199		7.880	1+						199 2.6 FS 6
60NI 200		7.927	1+						200 8.2 FS 36

60NI 201		7.951	1+						201 0.76 FS 14
60NI 202		7.981	9+						202
60NI 203		8.043	1+						203 7.7 FS 28
60NI 204					8.044	9-			204 0.04 PS +31-4
60NI 205		8.074	8+						205
60NI 206					8.086	1-			206 0.201 FS 35
60NI 207		8.112	1+						207 3.0 FS 7
60NI 208					8.127	1-			208 0.45 FS 6
60NI 209							8.189 1		209 1.04 FS 21
60NI 210					8.262	1-			210 0.40 FS 6

60NI 211					8.272	10-			211
60NI 212		8.286	(1+)						212
60NI 213					8.294	1-			213 0.76 FS 28
60NI 214		8.352	1+						214 2.4 FS 6
60NI 215		8.359	1+						215 3.4 FS 11
60NI 216					8.390	9-			216
60NI 217					8.407	1-			217 6.3 FS 37
60NI 218					8.427	9-			218

60NI 219			8.430	3-		219		
60NI 220			8.433	8-		220		

60NI 221					8.451 1	221	2.3 FS	6
60NI 222			8.464	1-		222	2.7 FS	7
60NI 223			8.486	9-		223		
60NI 224					8.505	224		
60NI 225			8.515	1-		225	0.69 FS	14
60NI 226			8.521	10-		226	0.5 PS	+6-2
60NI 227					8.566	227		
60NI 228					8.639	228		
60NI 229			8.655	1-		229	1.32 FS	28
60NI 230	8.657	1+				230	0.7 FS	6

60NI 231					8.666	231		
60NI 232	8.688	1+				232	2.6 FS	7
60NI 233	8.689	10+				233		
60NI 234			8.747	1-		234	0.90 FS	21
60NI 235	8.768	1+				235	8 FS	8
60NI 236	8.779	1+				236	1.25 FS	35
60NI 237			8.782	1-		237	1.25 FS	35
60NI 238	8.794	1+				238	1.11 FS	35
60NI 239	8.847	1+				239	1.5 FS	4
60NI 240	8.872	1+				240	1.6 FS	4

60NI 241	8.891	1+				241	0.83 FS	21
60NI 242			8.924	1-		242	0.36 FS	6
60NI 243			8.959	8-		243	79 KEV	
60NI 244			9.010	1-		244	2.1 FS	7
60NI 245					9.045	245		
60NI 246			9.053	1-		246	2.9 FS	12
60NI 247					9.060	247		
60NI 248	9.069	1+				248	1.04 FS	28
60NI 249					9.077	249		
60NI 250			9.092	1-		250	0.132 FS	28

60NI 251			9.123	10-		251		
60NI 252			9.132	1-		252	0.90 FS	21
60NI 253			9.132	11-		253	0.18 PS	+10-8
60NI 254			9.149	1-		254	0.69 FS	35
60NI 255			9.208	8-		255	127 KEV	
60NI 256			9.256	1-		256	1.5 FS	7
60NI 257			9.264	11-		257		
60NI 258			9.267	1-		258	1.4 FS	7
60NI 259					9.275 1	259	2.6 FS	19
60NI 260	9.301	1+				260	0.55 FS	21

60NI 261			9.308	1-		261	0.49 FS	21
60NI 262					9.347	262		
60NI 263			9.353	1-		263	1.9 FS	8

60NI 264				9.396	1-			264	0.83 FS	35
60NI 265				9.411	1-			265	1.2 FS	5
60NI 266		9.426	10+					266		
60NI 267		9.453	1+					267	1.0 FS	4
60NI 268					9.464	1-		268	0.21 FS	21
60NI 269		9.468	1+					269	1.9 FS	12
60NI 270					9.505	1-		270	10 FS	4
S-p	=	9.532	(0.001)	-----						
60NI 271					9.599	1-		271	0.62 FS	28
60NI 272					9.623	10-		272		
60NI 273					9.640	1-		273	3.0 FS	26
60NI 274					9.659	1-		274	0.049 FS	14
60NI 275		9.666	10+					275		
60NI 276					9.701	1-		276	0.8 FS	5
60NI 277		9.715	(10+)					277		
60NI 278					9.718	11-		278		
60NI 279					9.721	1-		279	1.2 FS	8
60NI 280					9.752	1-		280	4.2 FS	35
60NI 281					9.760	11-		281		
60NI 282					9.775	1-		282	1.9 FS	14
60NI 283					9.807	1-		283	1.6 FS	10
60NI 284		9.831	1+					284	1.3 FS	6
60NI 285					9.832	1-		285	1.3 FS	6
60NI 286					9.871	1-		286	0.8 FS	6
60NI 287		9.888	10+					287		
60NI 288					9.894	1-		288	0.49 FS	28
60NI 289							9.954	289		
60NI 290					9.960	11-		290		
60NI 291					9.989	(12-)		291	0.21 PS	+21-7
60NI 292							10.029	292		
60NI 293					10.054	(11-)		293		
60NI 294					10.159	(12-)		294		
60NI 295					10.242	(11-)		295		
60NI 296					10.697	12-		296		
60NI 297					10.789	12-		297		
60NI 298		10.825	11+					298		
60NI 299		10.873	11+					299		
60NI 300		10.978	11+					300		
60NI 301							10.985	301		
60NI 302		11.031	11+					302		
60NI 303		11.044	12+					303		
60NI 304					11.079	(12-)		304		
60NI 305					11.113	13-		305		
60NI 306					11.121	12-		306		
60NI 307							11.138	307		
60NI 308							11.149	308		

60NI 309						11.158		309
60NI 310		11.207		2+				310

60NI 311		11.225		(11+)				311
60NI 312		11.255		12+				312
60NI 313						11.388	(1-,2-)	313
S-n	=	11.388	(0.001)	-----			
60NI 314						11.429		314
60NI 315				11.443		13-		315
60NI 316		11.494		(12+)				316
60NI 317				11.553		13-		317
60NI 318						11.599		318
60NI 319		11.620		(1+)				319
60NI 320						11.647		320

60NI 321						11.702		321
60NI 322						11.732		322
60NI 323						11.750		323
60NI 324		11.786		(12+)				324
60NI 325		11.851		13+				325
60NI 326		11.860		(1+)				326
60NI 327						11.878	(13)	327
60NI 328						11.932		328
60NI 329						11.950		329
60NI 330						12.130		330

60NI 331				12.274		14-		331
60NI 332				12.333		8-		332
60NI 333						12.355		333
60NI 334						12.465		334
60NI 335		12.486		(13+)				335
60NI 336				12.515		8-		336
60NI 337		12.578		14+				337
60NI 338		12.742		13+				338
60NI 339		12.775		14+				339
60NI 340		12.859		13+				340

60NI 341				13.038		14-		341
60NI 342		13.246		13+				342
60NI 343		13.282		(14+)				343
60NI 344		13.353		(14+)				344
60NI 345				13.615		15-		345
60NI 346		13.662		15+				346
60NI 347						13.760		347
60NI 348				13.810		(15-)		348
60NI 349				13.908		8-		349
60NI 350		14.201		(15+)				350

60NI 351		14.464		15+				351
60NI 352		14.646		16+				352

60NI 353						14.670		353
60NI 354		14.803	16+					354
60NI 355					14.817	8-		355 64 KEV
60NI 356		14.934	16+					356
60NI 357		15.165	(16+)					357
60NI 358					15.281	(16-)		358
60NI 359					15.499	8-		359
60NI 360		16.027	17+					360

60NI 361		16.098	(17+)					361
60NI 362					16.110	8-		362
60NI 363					16.194	17-		363
60NI 364		16.242	(17+)					364
60NI 365		16.842	18+					365
S-2p	=	16.896	(0.000)	-----				
60NI 366		17.236	18+					366
60NI 367		17.912	19+					367
60NI 368					18.131	(18-)		368
60NI 369					19.238	(19-)		369
60NI 370		19.504	20+					370

S-p = 9.532 (0.001) -----
S-n = 11.388 (0.001) -----
S-2p = 16.896 (0.000) -----
S-2n = 20.387 (0.000) -----
S-alpha= 6.291 (0.000) -----

S+p = -4.800 (0.001)
S+n = -7.820 (0.001)
S+2p = -11.273 (0.001)
S+2n = -18.416 (0.001)
S+alpha = -3.956 (0.001)

gap p = 4.733 (0.001)
gap n = 3.568 (0.001)
gap 2p = 5.623 (0.001)
gap 2n = 1.971 (0.001)
gap alpha = 2.335 (0.001)