

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
1	H	1	1.00782503207(10)	99.9885(70)	1.00794(7)	stable	He-3
	D	2	2.0141017780(4)	0.0115(70)		stable	
	T	3	3.0160492777(25)			12.32(2) yr	
2	He	3	3.0160293197(26)	0.000134(3)	4.002602(2)	stable	
		4	4.00260325415(6)	99.999866(3)		stable	
3	Li	6	6.015122795(16)	7.59(4)	6.941(2)	stable	
		7	7.01600455(8)	92.41(4)		stable	
4	Be	9	9.0121822(4)	100	9.0121822(4)	stable	
5	B	10	10.0129370(4)	19.9(7)	10.811(7)	stable	
		11	11.0093054(4)	80.1(7)		stable	
6	C	12	12.000000000(0)	98.93(8)	12.0107(8)	stable	N-14
		13	13.0033548378(10)	1.07(8)		stable	
		14	14.003241989(4)			5730(30) yr	
7	N	14	14.0030740048(6)	99.636(7)	14.0067(2)	stable	
		15	15.0001088982(7)	0.364(7)		stable	
8	O	16	15.99491461956(16)	99.757(16)	15.9994(3)	stable	
		17	16.99913170(12)	0.038(1)		stable	
		18	17.9991610(7)	0.205(14)		stable	
9	F	18	18.009380(6)		18.99840322(7)	stable	
		19	18.99840322(7)	100			
10	Ne	20	19.9924401754(19)	90.48(3)	20.1797(6)	stable	
		21	20.99384668(4)	0.27(1)		stable	
		22	21.991385114(19)	9.25(3)		stable	
11	Na	22	21.9944364(4)		22.9897692809(29)	stable	
		23	22.9897692809(29)	100			
		24	23.99096278(8)				
12	Mg	24	23.985041700(14)	78.99(4)	24.3050(6)	stable	
		25	24.98583692(3)	10.00(1)		stable	
		26	25.982592929(30)	11.01(3)		stable	
13	Al	27	26.98153863(12)	100	26.98153863(12)	stable	
14	Si	28	27.9769265325(19)	92.223(19)	28.0855(3)	stable	
		29	28.976494700(22)	4.685(8)		stable	
		30	29.97377017(3)	3.092(11)		stable	
15	P	31	30.97376163(20)	100	30.97376163(20)	stable	
		32	31.97390727(20)				

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
16	S	32	31.97207100(15)	94.99(26)	32.065(5)	stable	
		33	32.97145876(15)	0.75(2)		stable	
		34	33.96786690(12)	4.25(24)		stable	
		35	34.96903216(11)				
		36	35.96708076(20)	0.01(1)		stable	
17	Cl	35	34.96885268(4)	75.76(10)	35.453(2)	stable	
		37	36.96590259(5)	24.24(10)		stable	
18	Ar	36	35.967545106(29)	0.3365(30)	39.948(1)	stable	
		38	37.9627324(4)	0.0632(5)		stable	
		40	39.9623831225(29)	99.6003(30)		stable	
19	K	39	38.96370668(20)	93.2581(44)	39.0983(1)	stable	
		40	39.96399848(21)	0.0117(1)		1.248(3)·10 ⁹ yr	Ca-40 Ar-40
		41	40.96182576(21)	6.7302(44)		stable	
		42	41.96240281(24)				
		43	42.960716(10)				
20	Ca	40	39.96259098(22)	96.941(156)	40.078(4)	stable	
		42	41.95861801(27)	0.647(23)		stable	
		43	42.9587666(3)	0.135(10)		stable	
		44	43.9554818(4)	2.086(110)		stable	
		45	44.9561866(4)				
		46	45.9536926(24)	0.004(3)		stable	
		47	46.9545460(24)				
		48	47.952534(4)	0.187(21)		4.3(38)·10 ¹⁹ yr	Ti-48
21	Sc	45	44.9559119(9)	100	44.9559119(9)	stable	
22	Ti	46	45.9526316(9)	8.25(3)	47.867(1)	stable	
		47	46.9517631(9)	7.44(2)		stable	
		48	47.9479463(9)	73.72(3)		stable	
		49	48.9478700(9)	5.41(2)		stable	
		50	49.9447912(9)	5.18(2)		stable	
23	V	50	49.9471585(11)	0.250(4)	50.9415(1)	1.5·10 ¹⁷ yr	Ti-50, Cr-50
		51	50.9439595(11)	99.750(4)		stable	
24	Cr	50	49.9460442(11)	4.345(13)	51.9961(6)	stable	
		51	50.9447674(11)				
		52	51.9405075(8)	83.789(18)		stable	
		53	52.9406494(8)	9.501(17)		stable	
		54	53.9388804(8)	2.365(7)		stable	
25	Mn	54	53.9403589(14)		54.9380451(7)		
		55	54.9380451(7)	100		stable	

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
26	Fe	52	51.948114(7)		55.845(2)		
		54	53.9396105(7)	5.845(35)		stable	
		55	54.9382934(7)				
		56	55.9349375(7)	91.754(36)		stable	
		57	56.9353940(7)	2.119(10)		stable	
		58	57.9332756(8)	0.282(4)		stable	
		59	58.9348755(8)				
27	Co	57	56.9362914(8)		58.9331950(7)		
		58	57.9357528(13)				
		59	58.9331950(7)	100		stable	
		60	59.9338171(7)				
28	Ni	58	57.9353429(7)	68.0769(89)	58.6934(2)	stable	
		59	58.9343467(7)				
		60	59.9307864(7)	26.2231(77)		stable	
		61	60.9310560(7)	1.1399(6)		stable	
		62	61.9283451(6)	3.6345(17)		stable	
		63	62.9296694(6)				
		64	63.9279660(7)	0.9256(9)		stable	
29	Cu	63	62.9295975(6)	69.15(3)	63.546(3)	stable	
		64	63.9297642(6)				
		65	64.9277895(7)	30.85(3)		stable	
30	Zn	64	63.9291422(7)	48.268(321)	65.409(4)	stable	
		65	64.9292410(7)				
		66	65.9260334(10)	27.975(77)		stable	
		67	66.9271273(10)	4.102(21)		stable	
		68	67.9248442(10)	19.024(123)		stable	
		70	69.9253193(21)	0.631(9)		stable	
31	Ga	67	66.9282017(14)		69.723(1)		
		68	67.9279801(16)				
		69	68.9255736(13)	60.108(9)		stable	
		71	70.9247013(11)	39.892(9)		stable	
32	Ge	68	67.928094(7)		72.64(1)		
		70	69.9242474(11)	20.3818)		stable	
		72	71.9220758(18)	27.31(26)		stable	
		73	72.9234589(18)	7.76(8)		stable	
		74	73.9211778(18)	36.72(15)		stable	
		76	75.9214026(18)	7.83(7)		1.78 · 10 ²¹ yr	Se-76
33	As	75	74.9215965(20)	100	74.9215965(20)	stable	

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
34	Se	74	73.9224764(18)	0.89(4)	78.96(3)	stable	
		75	74.9225234(18)				
		76	75.9192136(18)	9.37(29)			
		77	76.9199140(18)	7.63(16)			
		78	77.9173091(18)	23.77(28)			
		79	78.9184991(18)				
		80	79.9165213(21)	49.61(41)			
		82	81.9166994(22)	8.73(22)			
35	Br	79	78.9183371(22)	50.69(7)	79.904(1)	stable	
		81	80.9162906(21)	49.31(7)			
36	Kr	78	77.9203648(12)	0.355(3)	83.798(2)	stable	
		80	79.9163790(16)	2.286(10)			
		82	81.9134836(19)	11.593(31)			
		83	82.914136(3)	11.500(19)			
		84	83.911507(3)	56.987(15)			
		86	85.91061073(11)	17.279(41)			
37	Rb	85	84.911789738(12)	72.17(2)	85.4678(3)	stable	
		86	85.91116742(21)				
		87	86.909180527(13)	27.83(2)			
38	Sr	84	83.913425(3)	0.56(1)	87.62(1)	stable	
		85	84.912933(3)				
		86	85.9092602(12)	9.86(1)			
		87	86.9088771(12)	7.00(1)			
		88	87.9056121(12)	82.58(1)			
		89	88.9074507(12)				
		90	89.907738(3)				
39	Y	89	88.9058483(27)	100	88.9058483(27)	stable	
40	Zr	90	89.9047044(25)	51.45(40)	91.224(2)	stable	
		91	90.9056458(25)	11.22(5)			
		92	91.9050408(25)	17.15(8)			
		94	93.9063152(26)	17.38(28)			
		96	95.9082734(30)	2.80(9)			
41	Nb	93	92.9063781(26)	100	92.9063781(26)	stable	
42	Mo	92	91.906811(4)	14.77(31)	95.94(2)	stable	
		94	93.9050883(21)	9.23(10)			
		95	94.9058421(21)	15.90(9)			
		96	95.9046795(21)	16.68(12)			
		97	96.9060215(21)	9.56(5)			
		98	97.9054082(21)	24.19(26)			
		99	98.9077119(21)				
		100	99.907477(6)	9.67(20)			

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
43	Tc	97	96.906365(5)		[98]	2.6·10 ⁶ yr	Mo-97
		98	97.907216(4)			4.2(3)·10 ⁶ yr	Ru-98
		99	98.9062547(21)			2.111(12)·10 ⁵ yr	Ru-99
44	Ru	96	95.907598(8)	5.54(14)	101.07(2)	stable	
		98	97.905287(7)	1.87(3)		stable	
		99	98.9059393(22)	12.76(14)		stable	
		100	99.9042195(22)	12.60(7)		stable	
		101	100.9055821(22)	17.06(2)		stable	
		102	101.9043493(22)	31.55(14)		stable	
		104	103.905433(3)	18.62(27)		stable	
106	105.907329(8)						
45	Rh	103	102.905504(3)	100	102.905504(2)	stable	
46	Pd	102	101.905609(3)	1.02(1)	106.42(1)	stable	
		104	103.904036(4)	11.14(8)		stable	
		105	104.905085(4)	22.33(8)		stable	
		106	105.903486(4)	27.33(3)		stable	
		108	107.903892(4)	26.46(9)		stable	
		110	109.905153(12)	11.72(9)		stable	
47	Ag	107	106.905097(5)	51.839(8)	107.8682(2)	stable	
		109	108.904752(3)	48.161(8)		stable	
48	Cd	106	105.906459(6)	1.25(6)	112.411(8)	stable	
		108	107.904184(6)	0.89(3)		stable	
		110	109.9030021(29)	12.49(18)		stable	
		111	110.9041781(29)	12.80(12)		stable	
		112	111.9027578(29)	24.13(21)		stable	
		113	112.9044017(29)	12.22(12)		7.7(3)·10 ¹⁵ yr	In-113
		114	113.9033585(29)	28.73(42)		stable	
		116	115.904756(3)	7.49(18)		3.1(4)·10 ¹⁹ yr	Sn-116
49	In	111	110.905103(5)		114.818(3)		
		113	112.904058(3)	4.29(5)		stable	
		115	114.903878(5)	95.71(5)		4.41(25)·10 ¹⁴ yr	Sn-115

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product	
50	Sn	112	111.904818(5)	0.97(1)	118.710(7)	stable		
		113	112.905171(4)					
		114	113.902779(3)	0.66(1)			stable	
		115	114.903342(3)	0.34(1)			stable	
		116	115.901741(3)	14.54(9)			stable	
		117	116.902952(3)	7.68(7)			stable	
		118	117.901603(3)	24.22(9)			stable	
		119	118.903308(3)	8.59(4)			stable	
		120	119.9021947(27)	32.58(9)			stable	
		122	121.9034390(29)	4.63(3)			stable	
124	123.9052739(15)	5.79(5)	stable					
51	Sb	121	120.9038157(24)	57.21(5)	121.760(1)	stable		
		123	122.9042140(22)	42.79(5)			stable	
52	Te	120	119.904020(10)	0.09(1)	127.60(3)	stable		
		122	121.9030439(16)	2.55(12)			stable	
		123	122.9042700(16)	0.89(3)			>6·10 ¹⁴ yr	Sb-123
		124	123.9028179(16)	4.74(14)			stable	
		125	124.9044307(16)	7.07(15)			stable	
		126	125.9033117(16)	18.84(25)			stable	
		128	127.9044631(19)	31.74(8)			2.2(3)·10 ²⁴ yr	Xe-128
		130	129.9062244(21)	34.08(62)			7.9(10)·10 ²⁰ yr	Xe-130
53	I	123	122.905589(4)		126.904473(4)	stable		
		125	124.9046302(16)					
		127	126.904473(4)	100				
		129	128.904988(3)					
		131	130.9061246(12)					
54	Xe	124	123.9058930(20)	0.0952(3)	131.293(6)	stable		
		126	125.904274(7)	0.0890(2)			stable	
		128	127.9035313(15)	1.9102(8)			stable	
		129	128.9047794(8)	26.4006(82)			stable	
		130	129.9035080(8)	4.0710(13)			stable	
		131	130.9050824(10)	21.2324(30)			stable	
		132	131.9041535(10)	26.9086(33)			stable	
		134	133.9053945(9)	10.4357(21)			stable	
		136	135.907219(8)	8.8573(44)			stable	
55	Cs	129	128.906064(5)		132.905451933(24)	stable		
		133	132.905451933(24)	100				
		134	133.906718475(28)					
		136	135.9073116(20)					
		137	136.9070895(5)					

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product	
56	Ba	130	129.9063208(30)	0.106(1)	137.327(7)	stable		
		132	131.9050613(11)	0.101(1)		stable		
		133	132.9060075(11)					
		134	133.9045084(4)	2.417(18)		stable		
		135	134.9056886(4)	6.592(12)		stable		
		136	135.9045759(4)	7.854(24)		stable		
		137	136.9058274(5)	11.232(24)		stable		
		138	137.9052472(5)	71.698(42)		stable		
		140	139.910605(9)					
57	La	138	137.907112(4)	0.090(1)	138.90547(7)	1.02(1)·10 ¹¹ yr	Ba-138 Ce-138	
		139	138.9063533(26)	99.910(1)		stable		
58	Ce	136	135.907172(14)	0.185(2)	140.116(1)	stable		
		138	137.905991(11)	0.251(2)		stable		
		140	139.9054387(26)	88.450(51)		stable		
		141	140.9082763(26)					
		142	141.909244(3)	11.114(51)		stable		
144	143.913647(4)							
59	Pr	141	140.9076528(26)	100	140.9076528(26)	stable		
60	Nd	142	141.9077233(25)	27.2(5)	144.242(3)	stable		
		143	142.9098143(25)	12.2(2)		stable		
		144	143.9100873(25)	23.8(3)		2.29(16)·10 ¹⁵ yr		Ce-140
		145	144.9125736(25)	8.3(1)		stable		
		146	145.9131169(25)	17.2(3)		stable		
		148	147.916893(3)	5.7(1)		stable		
		150	149.920891(3)	5.6(2)		6.7(7)·10 ¹⁸ yr		Sm-150
61	Pm	145	144.912749(3)		[145]	17.7(4) yr	Nd-145	
		147	146.9151385(26)			2.2634(2) yr	Sm-147	
62	Sm	144	143.911999(3)	3.07(7)	150.36(3)	stable		
		147	146.9148979(26)	14.99(18)		1.06(2)·10 ¹¹ yr		Nd-143
		148	147.9148227(26)	11.24(10)		7(3)·10 ¹⁵ yr		Nd-144
		149	148.9171847(26)	13.82(7)		stable		
		150	149.9172755(26)	7.38(1)		stable		
		152	151.9197324(27)	26.75(16)		stable		
154	153.9222093(27)	22.75(29)	stable					
63	Eu	151	150.9198502(26)	47.81(3)	151.964(1)	5·10 ¹⁸ yr	Pm-147	
		153	152.9212303(26)	52.19(3)		stable		

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
64	Gd	152	151.9197910(27)	0.20(1)	157.25(3)	1.08(8)·10 ¹⁴ yr	Sm-148
		154	153.9208656(27)	2.18(3)			
		155	154.9226220(27)	14.80(12)			
		156	155.9221227(27)	20.47(9)			
		157	156.9239601(27)	15.65(2)			
		158	157.9241039(27)	24.84(7)			
		160	159.9270541(27)	21.86(19)			
65	Tb	159	158.9253468(27)	100	158.9253468(27)	stable	
66	Dy	156	155.924283(7)	0.056(3)	162.500(1)		
		158	157.924409(4)	0.095(3)			
		160	159.9251975(27)	2.329(18)			
		161	160.9269334(27)	18.889(42)			
		162	161.9267984(27)	25.475(36)			
		163	162.9287312(27)	24.896(42)			
		164	163.9291748(27)	28.260(54)			
67	Ho	165	164.9303221(27)	100	164.9303221(27)	stable	
68	Er	162	161.928778(4)	0.139(5)	167.259(3)		
		164	163.929200(3)	1.601(3)			
		166	165.9302931(27)	33.503(36)			
		167	166.9320482(27)	22.869(9)			
		168	167.9323702(27)	26.978(18)			
		170	169.9354643(30)	14.910(36)			
69	Tm	169	168.9342133(27)	100	168.9342133(27)	stable	
70	Yb	168	167.933897(5)	0.13(1)	173.04(3)		
		169	168.935190(5)				
		170	169.9347618(26)	3.04(15)			
		171	170.9363258(26)	14.28(57)			
		172	171.9363815(26)	21.83(67)			
		173	172.9382108(26)	16.13(27)			
		174	173.9388621(26)	31.83(92)			
176	175.9425717(28)	12.76(41)					
71	Lu	175	174.9407718(23)	97.41(2)	174.967(1)		
		176	175.9426863(23)	2.59(2)			
72	Hf	174	173.940046(3)	0.16(1)	178.49(2)	2.0(4)·10 ¹⁵ yr	Yb-170
		176	175.9414086(24)	5.26(7)			
		177	176.9432207(23)	18.60(9)			
		178	177.9436988(23)	27.28(7)			
		179	178.9458161(23)	13.62(2)			
		180	179.9465500(23)	35.08(16)			
73	Ta	180	179.9474648(24)	0.012(2)	180.9479(1)	8.152(6) h	Hf-180 W-180
		181	180.9479958(19)	99.988(2)			

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
74	W	180	179.946704(4)	0.12(1)	183.84(1)	stable	
		182	181.9482042(9)	26.50(16)		stable	
		183	182.9502230(9)	14.31(4)		stable	
		184	183.9509312(9)	30.64(2)		stable	
		186	185.9543641(19)	28.43(19)		stable	
75	Re	185	184.9529550(13)	37.40(2)	186.207(1)	stable	
		187	186.9557531(15)	62.60(2)		4.122(2)·10 ¹⁰ yr	Os-187 Ta-183
76	Os	184	183.9524891(14)	0.02(1)	190.23(3)	stable	
		186	185.9538382(15)	1.59(3)		2.0(11)·10 ¹⁵ yr	W-182
		187	186.9557505(15)	1.96(2)		stable	
		188	187.9558382(15)	13.24(8)		stable	
		189	188.9581475(16)	16.15(5)		stable	
		190	189.9584470(16)	26.26(2)		stable	
		192	191.9614807(27)	40.78(19)		stable	
77	Ir	191	190.9605940(18)	37.3(2)	192.217(3)	stable	
		193	192.9629264(18)	62.7(2)		stable	
78	Pt	190	189.959932(6)	0.014(1)	195.078(2)	6.5(3)·10 ¹¹ yr	Os-186
		192	191.9610380(27)	0.782(7)		stable	
		194	193.9626803(9)	32.967(99)		stable	
		195	194.9647911(9)	33.832(10)		stable	
		196	195.9649515(9)	25.242(41)		stable	
		198	197.967893(3)	7.163(55)		stable	
79	Au	197	196.9665687(6)	100	196.9665687(6)	stable	
		198	197.9682423(6)				
80	Hg	196	195.965833(3)	0.15(1)	200.59(2)	stable	
		197	196.967213(3)				
		198	197.9667690(4)	9.97(20)		stable	
		199	198.9682799(4)	16.87(22)		stable	
		200	199.9683260(4)	23.10(19)		stable	
		201	200.9703023(6)	13.18(9)		stable	
		202	201.9706430(6)	29.86(26)		stable	
		203	202.9728725(18)				
204	203.9734939(4)	6.87(15)	stable				
81	Tl	201	200.970819(16)		204.3833(2)		
		203	202.9723442(14)	29.52(1)		stable	
		205	204.9744275(14)	70.48(1)		stable	
82	Pb	204	203.9730436(13)	1.4(1)	207.2(1)	stable	
		206	205.9744653(13)	24.1(1)		stable	
		207	206.9758969(13)	22.1(1)		stable	
		208	207.9766521(13)	52.4(1)		stable	
		210	209.9841885(16)				

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product
83	Bi	207	206.9784707(26)	100	208.9803987(16)	1.9(2)·10 ¹⁹ yr	Tl-205
		209	208.9803987(16)				
84	Po	209	208.9824304(20)		[209]	102(5) yr	Pb-205 Bi-209
		210	209.9828737(13)			138.376(2) d	Pb-206
		211	209.987148(8)		[210]	8.1(4) h	Po-210
85	At	210	209.987148(8)		[210]	8.1(4) h	Po-210
		211	210.9874963(30)			7.214(7) h	
86	Rn	211	210.990601(7)		[222]	14.6 h	At-211 Po-207
		220	220.0113940(24)				
		222	222.0175777(25)			3.8235(3) d	Po-218
		223	223.0197359(26)		[223]	22.00(7) min	Ra-223 At-219
88	Ra	223	223.0185022(27)		[226]		
		224	224.0202118(24)				
		226	226.0254098(25)				
		228	228.0310703(26)				
89	Ac	227	227.0277521(26)		[227]		
90	Th	228	228.0287411(24)		232.0380553(21)		
		230	230.0331338(19)				
		232	232.0380553(21)	100			
91	Pa	231	231.0358840(24)	100	231.0358840(24)		
92	U	233	233.0396352(29)		238.02891(3)		
		234	234.0409521(20)	0.0054(5)			
		235	235.0439299(20)	0.7204(6)			
		236	236.0455680(20)				
		238	238.0507882(20)	99.2742(10)			
93	Np	237	237.0481734(20)		[237]		
		239	239.0529390(22)				
94	Pu	238	238.0495599(20)		[244]		
		239	239.0521634(20)				
		240	240.0538135(20)				
		241	241.0568515(20)				
		242	242.0587426(20)				
		244	244.064204(5)				
95	Am	241	241.0568291(20)		[243]		
		243	243.0613811(25)				
96	Cm	243	243.0613891(22)		[247]		
		244	244.0627526(20)				
		245	245.0654912(22)				
		246	246.0672237(22)				
		247	247.070354(5)				
		248	248.072349(5)				

Z	Sym	A	Isotope atomic mass u	Natural abundance %	Average atomic mass u	Half-life	Decay product	
97	Bk	247	247.070307(6)		[247]			
		249	249.0749867(28)					
98	Cf	249	249.0748535(24)		[251]			
		250	250.0764061(22)					
		251	251.079587(5)					
		252	252.081626(5)					
99	Es	252	252.082980(50)		[252]			
100	Fm	257	257.095105(7)		[257]			
101	Md	256	256.094060(60)		[258]			
		258	258.098431(5)			51.3 d		
102	No	251	251.08901(19)		[251]		1.7 s	
		259	259.10103(11)					
103	Lr	262	262.10963(22)		[262]		216 min	
104	Rf	261	261.108770(30)		[261]		81 s	
105	Db	262	262.11408(20)		[268]			
		268	268.12545(57)			32 h		
106	Sg	263	263.11832(13)		[271]			
		271	271.13347(70)			2.4 min		
107	Bh	264	264.12460(30)		[274]			
		274	274.14244(84)			54 s		
108	Hs	265	265.13009(15)		[269]			
		269	269.13406(13)			9.7 s		
109	Mt	268	268.13873(34)		[278]			
		278	278.15481(90)			7.6 s		
110	Ds	281	281.16206(78)		[281]		9.6 s	
111	Rg	272	273.15362(36)		[281]			
		281	281.16537(100)			26 s		
112	Cn	285	285.17411(78)		[285]		29 s	
113	Uut	286	286.18048(101)		[286]		19.6 s	Rg-282
114	Fl	289	289.18728(79)		[289]		2.6 s	Cn-285
115	Uup	291	291.19547(103)		[291]		60 s	Uut-287
116	Lv	293	?		[293]		53 ms	Fl-289