1 H 2 He 3 Li	1	2				6	7	8	. 0	: 10	11		12	1/1	15	16	17	1Ω	10	20	21										31
2 He 3 Li	100	.015	3	4	5	ь	- /	8	9	10	- 11	12	13	14	15	16	17	16	19	20	- 21	22	23	24	25	26	27	28	29	30	
3 Li			.000	100																											
						7.5	92.5		100						ļ		ļ	ļ		ļ	ļ										
4 Be 5 B									100	20	80			·	-			ļ		<u> </u>	-										
6 C												98.9	1.11		1		1				1										
7 N									ļ					99.6	.360					Ţ	Ţ	Ţ									
8 O					ļ									ļ	ļ	99.8	.040	.200	400	ļ	ļ	ļ									
9 F														ļ					100	00 E	270	0.22									
10 Ne 11 Na														<u> </u>	ļ			ļ		90.5	.270	9.22	100								
11 Na 12 Mg														<u> </u>									100	79	10	11					
13 Al														†	<u> </u>						<u> </u>						100				
14 Si																												92.2	4.67	3.1	
15 P																															100
7	22	22	34	25	20	27	20	20	40	44	40	40	4.4	45	40	47	40	40								67				: :	: 1
Z 16 S	32 95		4.22	35	.020		38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58				
17 CI	33	.700	7.22	75.8		24.2								<u> </u>						<u>.</u>											
18 Ar					.340		.070		99.6						1	!	!				1										
19 K								93.3	.010		6.73				Ţ																
20 Ca					ļ	ļ		ļ	96.9		.647	.135	2.09		0	ļ	.187	ļ		<u> </u>	<u> </u>	ļ								ļ	
21 Sc														100				ļ <u></u>		ļ		ļ									
22 Ti 23 V		ļ				ļ			ļ	ļ		ļ		ļ	8	7.5	/3./	5.5	5.3	99.8	ļ	ļ			ļ						
23 v 24 Cr					<u> </u>	ļ						İ		i	<u> </u>		<u> </u>	<u> </u>	4.35			9.5	2 36		<u> </u>						
25 Mn								 	İ						†		!			†				100							
26 Fe					<u> </u>				İ					†	†					†	†		5.8		91.8	2.1	.300				
-	I				1	1						1																			
Z 26 Fo.*		59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82			-	-		
26 Fe ° 27 Co	.300	100					ļ	ļ	 	ļ			ļ		 		ł	·	ļ		 	ļ	ļ	ļ					ļ		
27 CO 28 Ni	68.3		26.1	1.13	3.59	1	.910	<u> </u>	1			1		1	1	<u> </u>	İ	1			1	<u> </u>			İ						
29 Cu						69.2		30.8		[Ţ	Ţ		ļ	<u> </u>			Ţ	Ţ	[
30 Zn					ļ		48.6			4.1	18.8		.600		ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ	ļ								
31 Ga	ļ	ļ			ļ	ļ	ļ	ļ	ļ	ļ	ļ	60	<u> </u>	40				ļ		ļ	ļ	ļ	ļ	ļ	ļ		ļ	ļ	ļ	ļ	ļ
32 Ge							ļ	ļ		ļ	ļ		20.5	ļ	27.4	7.8	36.5		7.8		 	ļ	ļ	ļ	ļ			ļ	ļ		
33 As 34 Se	·														<u> </u>		.900	100	٥	7.0	23.5	i	49.8	İ	9.2			ļ	İ		
J-T 38	1				:	:	:			:	:	:	:	:	:		500	:	. 3	1.0	. 20.0		+3.0		J.Z		:				
Z	78					83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	\Box			
34 Se *	23.5		49.8		9.2			ļ	ļ		ļ			ļ	ļ	ļ	ļ	ļ		ļ	ļ	ļ							ļ		
35 Br	250	50.7		49.3		11 -	EC 0	ļ	47.4	ļ	ļ	ļ	ļ	ļ	 	ļ	ļ	ļ	ļ	ļ	 	ļ	ļ	<u> </u>	i		ļ		ļ		
36 Kr 37 Rb	.350		2.25		11.6	11.5	56.9	72.2	17.4	27.8				<u> </u>				ļ		ļ		ļ									
38 Sr					 		.500			7	82.6				†		 				 	-			<u> </u>						
39 Y								 	0.0			100			†		!			†	†										
40 Zr													51.4	11.2	17.1		17.5		2.8												
41 Nb														ļ		100				ļ											
42 Mo		ļ			ļ	ļ		ļ	ļ			ļ		ļ	14.8	ļ	9.3	15.9		9.6		ļ <u>.</u>	9.6							ļ	
44 Ru 45 Rh									-					ļ					5.5	ļ	1.9	12.7	12.6	17.1	31.6	100	18.6				
+5 1(11	1	·			:		:	:		:	:		:		·	<u>:</u>	:	:	<u>:</u>		<u>:</u>	:	:		:	100	:	<u> </u>	:		:
	400	103	404	405	400	407					440	112	114	115	116	117	440	110	120	121	122	123	124	125	126	127	128	129	130		
Z		100	104	105	100	107	108	109	110	111	112	113	117		110	: 11/	118	119	120										130		
44 Ru'			18.6	105	106	107	108	109	110	111	112	113			110		118	119	120		ļ							120	130		
44 Ru' 45 Rh	31.6		18.6								112	113	114		110	117	118	119	120									120	130		
44 Ru' 45 Rh 46 Pd			18.6		27.3		26.7		11.8		112	113	117		110	117	118	119	120									120	130		
44 Ru' 45 Rh 46 Pd 47 Ag	31.6		18.6		27.3	51.8	26.7	48.2	11.8							- 117	118	119	120										130		
44 Ru ' 45 Rh 46 Pd 47 Ag 48 Cd	31.6		18.6		27.3	51.8	26.7	48.2	11.8			12.3	28.8		7.6	- 117	118	119	120										130		
44 Ru ' 45 Rh 46 Pd 47 Ag 48 Cd	31.6		18.6		27.3	51.8	26.7	48.2	11.8				28.8	95.7	7.6						4.6		5.6					.20	130		
44 Ru ⁴ 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb	31.6		18.6		27.3	51.8	26.7	48.2	11.8			12.3	28.8	95.7	7.6				32.4	57.3	4.6	42.7						.20			
44 Ru 4 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb 52 Te	31.6		18.6		27.3	51.8	26.7	48.2	11.8			12.3	28.8	95.7	7.6					57.3	4.6				18.7		31.7		34.5		
44 Ru 4 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb 52 Te	31.6		18.6		27.3	51.8	26.7	48.2	11.8			12.3	28.8	95.7	7.6				32.4	57.3	4.6	42.7			18.7	100	31.7				
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb 52 Te 53 I	31.6	100	18.6	22.2	27.3	51.8	.900	48.2	11.8	12.8	24	12.3 4.3	28.8	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5		
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb 52 Te 53 I	31.6		18.6	22.2	27.3	51.8	.900	48.2	11.8	12.8	24	12.3 4.3	28.8	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 552 Te 53 I	31.6 1 1 124 5.6	125	18.6	22.2	1.2	51.8	26.7	48.2	11.8	12.8	24	12.3 4.3	28.8	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 52 Te 50 Sn 52 Te 52 Te 52 Te 52 Te 52 Te 52 Te 52 Te 52 Te 52 Te 552 Te 552 Te 552 Te 552 Te 553 Te 552 Te 553 Te 552 Te 553 Te 552 Te 553 Te 552 Te 554 Te 5552 Te	31.6 1 1 124 5.6	125	18.6	22.2	27.3	51.8	.900	48.2	11.8	12.8	24	12.3 4.3	28.8	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 48 Cd 49 In 550 Sn 552 Te 553 I	31.6 1 1 124 5.6 4.6	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5	48.2	11.8	12.8	24 1 134	12.3 4.3	28.8 .700	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sn 51 Sb 52 Te 53 I	31.6 1 1 124 5.6 4.6	125	18.6	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5	48.2	11.8	12.8	24	12.3 4.3	28.8	95.7 .400	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 48 Cd 49 In 550 Sn 552 Te 553 I	31.6 1 1 124 5.6 4.6	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5	48.2	11.8	12.8	24 1 134	12.3 4.3	28.8 .700 136	95.7	7.6	7.7	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 45 Rh 46 Pd 47 Ag 48 Cd 49 In 50 Sh 50 Sn 51 Sb 52 Te 53 I F 54 Xe 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Cs 56 Sn 56 Sn 57 La	124 5.6 4.6	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136 8.9	95.7 .400	7.6 14.7 138 71.7	139	140	141	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
44 Ru 45 Rh 45 Rh 46 Pd 47 Ag 48 Cd 49 In 550 Sn 55	124 5.6 4.6	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136	95.7 .400	7.6 14.7 138	139	24.3	8.6	32.4	57.3	4.6	42.7	4.6	7					34.5	153	154
144 Ru 145 Rh 146 Pd 147 Ag 148 Cd 149 In 150 Sm 151 Sb 152 Te 153 I Te 155 Cs 156 Ba 157 La 156 Ce	31.6 1 1 124 5.6 4.6 .100	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136 8.9	95.7 .400	7.6 14.7 138 71.7	139	140	141	32.4 .100	57.3	4.6 2.5	42.7 .900	146	7	148		150		34.5	153	154
144 Ru 1 15 Rh 1 16 Rh 1 16 Pd 17 Ag 18 Cd 19 In 10 10 Sn 51 Sb 52 Te 53 I Z Z Z 50 Sn 52 Te 53 I 54 Xe 55 Cs 56 Gs 6 Ba 57 La 58 Ce 59 Pr 150 Nd 1	31.6 1 1 24 5.6 4.6 .100	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136 8.9	95.7 .400	7.6 14.7 138 71.7	139	140	8.6	32.4 .100	57.3	4.6 2.5	42.7 .900	4.6	7	148	149	150		34.5		
44 Ru 1 45 Rh 44 46 Pd 46 46 Pd 47 49 In 1 50 Sn 51 51 Sb 52 Te 53 3 I Z Z Z 50 Sn 64 55 Cs 65 65 Ba 67 66 Ba 67 67 68 Ce 69 69 Pr 60 60 Nd 62 50 Sn 62 50 Sn 65 60 Nd 64 50 Sn 65 50 Sn 65 60 Nd 65 50 Sn 65 50 Sn 65 60 Nd 65	31.6 1 1 24 5.6 4.6 .100	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136 8.9	95.7 .400	7.6 14.7 138 71.7	139	140	8.6	32.4 .100	57.3	4.6 2.5	42.7 .900	146	7	148	149	150	151	34.5		22.6
44 Ru 1 45 Rh 44 46 Pd 46 46 Pd 47 49 In 1 50 Sn 51 51 Sb 52 Te 53 3 I Z Z Z 50 Sn 64 55 Cs 65 65 Ba 67 66 Ba 67 67 68 Ce 69 69 Pr 60 60 Nd 62 50 Sn 62 50 Sn 65 60 Nd 64 50 Sn 65 50 Sn 65 60 Nd 65 50 Sn 65 50 Sn 65 60 Nd 65	31.6 1 1 24 5.6 4.6 .100	125	18.6 11 126 18.7	22.2	27.3 1.2 128 31.7	51.8	26.7 .900 130 34.5 4.1	48.2	11.8 12.4 132 26.9	12.8	24 1 134	12.3 4.3	28.8 .700 136 8.9	95.7 .400	7.6 14.7 138 71.7	139	140	8.6	32.4 .100	57.3	4.6 2.5	42.7 .900	146	7	148	149	150		34.5		22.6
144 Ru 145 Rh 146 Pd 147 Ag 148 Cd 149 In 150 Sh 15	1124 124 5.6 4.6	125	18.6 11 126 18.7 .100	127	27.3 1.2 1.2 31.7 1.9	129	26.7 900 34.5 4.1 .100	131	11.8 12.4 132 26.9	12.8	134	12.3 4.3	28.8 .700 136 8.9 .7.9	95.7 400	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru 144 Ru 145 Rh 146 Pd 147 Ag 148 Cd 149 In 150 Sn 150	124 5.6 4.6 .100	125	18.6 11 126 18.7 .100	127	27.3 1.2 1.2 31.7 1.9	129	26.7 900 34.5 4.1 .100	131	11.8 12.4 132 26.9	12.8	134	12.3 4.3	28.8 .700 136 8.9 .7.9	95.7 400	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru 44 Ru 45 Rh 46 Pd 47 Ag 48 Cd 49 In 551 Sb 52 Te 53 I 54 Xe 555 Cs 56 Ba 57 La 556 Sc 56 S	124 5.6 4.6 .100	125 7	18.6 11 126 18.7 .100	127	27.3 1.2 1.2 31.7 1.9	129	26.7 900 34.5 4.1 .100	131	11.8 12.4 132 26.9	12.8	134	12.3 4.3	28.8 .700 136 8.9 .7.9	95.7 400	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru 445 Rh 45 Rh 465 Ph 464 Ph 474 Ag 48 Cd 49 In 50 Sn 50 Sn 50 Sn 552 Te 553 I S552 Te 555 Ca 8 Ba 556 Ba 566 Ba 568 Ce 569 Pr 500 Nd 652 Sm 653 Eu	124 5.6 4.6 .100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	27.3 1.2 128 31.7 1.9	129	26.7 .900 	131	11.8 12.4 132 26.9 .100	12.8	134	12.3 4.3	28.8 .700 136 8.9 .7.9	95.7 400	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru 14 Ru	124 5.6 4.6 .100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	27.3 1.2 128 31.7 1.9	129	26.7 .900 	131	11.8 12.4 132 26.9	12.8	134	12.3 4.3	28.8 .700 136 8.9 .7.9	95.7 400	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru hit hit hit hit hit hit hit hit hit hit	124 5.6 4.6 .100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	27.3 1.2 128 31.7 1.9	1129 26.4 157	26.7 .900 	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4	12.3 4.3	28.8 .700 	137	7.6 14.7 138 71.7 .090	139	140	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
14 Ru 14 Ru 15 R	124 5.6 4.6 .100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4	12.3 4.3 135 6.6	28.8 .700 	137	7.6 14.7 138 71.7 .090 .300	139	140 88.4	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
44 Ru 147 Ag 147 Ag 147 Ag 147 Ag 147 Ag 148 Cd 147 Ag 148	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4	135 6.6 163	28.8 .700 	137	7.6 14.7 138 71.7 .090 .300	139	140 88.4	141	32.4 100 142 11.1 27.2	143	2.5 144 2.3 2.3.8 3.1	42.7 900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4 162 25.5	135 6.6 163	28.8 .700 .136 .8.9 .200 .164	137	7.6 14.7 138 71.7 .090 .300	139	24.3 140 88.4 168	141	142 11.1 27.2	143	23.8 3.1 172	42.7 .900	146	7 147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
4 Ru u 4 Ru u 4 Ru u 6	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4 162 25.5	135 6.6 163	28.8 .700 .136 .8.9 .200 .164	137	7.6 14.7 138 71.7 .090 .300	139	140 88.4	141	142 11.1 27.2	143	23.8 3.1 172	42.7 900	146	147	5.7 11.3	149	150 5.6 7.4	151	34.5 152 26.6		22.6
4 Ru h 6 Pd 7 Ag 9 In n 1 Sb 1 Sc 2 Te 3 I L 2 Sm 1 G 2 Sm 1 G 3 E 2 Sm 1 G 6 D 7 Ag 6 D 7 Ag 7 Ag 8 Ag 8 Ag 8 Ag 8 Ag 8 Ag 8 Ag 8 Ag 8	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4 162 25.5	135 6.6 163	28.8 .700 .136 .8.9 .200 .164	137	7.6 14.7 138 71.7 .090 .300	139	24.3 140 88.4 168	141	142 11.1 27.2	143	23.8 3.1 172	42.7 .900	146	15.1	5.7 11.3 176	13.9	150 5.6 7.4	47.8 179	152 26.6		22.6
	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4 162	135 6.6 163	28.8 .700 .136 .8.9 .200 .164	137	7.6 14.7 138 71.7 .090 .300	139	24.3 140 88.4 168	141	142 11.1 27.2	143	23.8 3.1 172	42.7 .900	146	15.1	5.7 11.3 176	13.9	150 5.6 7.4	151	152 26.6		22.6
	124 5.6 4.6 100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127	128 31.7 1.9	1129 26.4 157	26.7 900 130 34.5 4.1 .100	131	11.8 12.4 132 26.9 100	12.8	134 10.4 2.4 162	135 6.6 163	28.8 .700 .136 .8.9 .200 .164	137	7.6 14.7 138 71.7 .090 .300	139	24.3 140 88.4 168	141	142 11.1 27.2	143	23.8 3.1 172	42.7 .900	146	15.1	5.7 11.3 176	13.9	150 5.6 7.4	47.8 179	152 26.6		22.6
	124 5.6 4.6 .100	100 125 7 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 156 20.5	129 26.4	130 34.5 4.1 .100	131 21.2 159	11.8 12.4 12.4 26.9 .100	12.8	10.4 10.4 2.4 162 25.5	12.3 4.3 135 6.6	28.8 .700 136 8.9 .7.9 .200 	95.7 400	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
14 Ru 14 Ru 14 Ru 15 Ru 17 R	124 5.6 4.6 100	125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 156 20.5	129 26.4	130 34.5 4.1 .100	131 21.2 159	11.8 12.4 12.4 26.9 .100	12.8	10.4 10.4 2.4 162 25.5	12.3 4.3 135 6.6	28.8 .700 136 8.9 .7.9 .200 	95.7 400	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
	1124 5.6, 4.6 1100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 156 20.5 .060	129 26.4 157	190 34.5 4.1 .100 158 24.8 .100	131 21.2 159	11.8 12.4 12.4 26.9 .100	12.8	10.4 10.4 2.4 162 25.5	12.3 4.3 135 6.6	28.8 .700 136 8.9 .7.9 .200 	95.7 400	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
	124 5.6 4.6 100 100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 156 20.5	129 26.4 157 15.7	130 34.5 4.1 .100	131 21.2 159	11.8 12.4 12.4 26.9 .100	12.8	10.4 10.4 2.4 162 25.5	12.3 4.3 135 6.6	28.8 .700 136 8.9 .7.9 .200 	95.7 400	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
44 Ru 14 Ru	1124 5.6, 4.6 1100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 .100	12.3 4.3 135 6.6	28.8 .700 	95.7 400	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
444 Ru 1 447 Ru 1 45 Ru 1 46 Pd 47 Ag 1 47 Ag 1 48 Cd 499 In In In In In In In In In In In In In	1124 5.6, 4.6 1100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 156 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 26.9 .100	12.8 12.8 133 100	134 10.4 2.4 162 25.5 .100	12.3 4.3 135 6.6 24.9	28.8 .700 136 8.9 .200 164 1.6 192	95.7 400 1137 11.2 165	7.6 14.7 138 71.7 .090 300	139	24.3 140 88.4 168	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
44 Ru 14 Ru	1124 5.6, 4.6 1100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 1000	12.3 4.3 135 6.6 163 24.9	28.8 .700 	95.7 400 1137 111.2 165	7.6 14.7 138 71.7 .990 .300	139 99.9 167	24.3 140 88.4 168 27 100	100	32.4 100 142 11.1 27.2	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
44 Ru 14 Ru	1124 5.6, 4.6 1100 152 26.6 200 180 35.2	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 .100	12.3 4.3 135 6.6 163 24.9	28.8 .700 136 8.9 .200 164 1.6 192	95.7 400 1137 111.2 165	7.6 14.7 138 71.7 .990 .300	139	24.3 140 88.4 168 27 100	100	11.1 170 170 15 3.1	171	23.8 3.1 172 21.9	142.7 900 145 8.3 173	17.2 17.2 17.4 31.7	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
444 Ru 1 447 Ru 1 45 Ru 1 46 Ru 1 47 Ag 1 48 Cd 1 49 In In In In In In In In In In In In In	124 5.6 100 152 163 180 35.2 100	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 1000	12.3 4.3 135 6.6 163 24.9	28.8 .700 	95.7 400 1137 111.2 165	7.6 14.7 138 71.7 .990 .300	139 99.9 167	24.3 140 88.4 168 27 100	100	32.4 .100 	171 143	23.8 3.1 172 21.9	142.7 900 145 8.3 173	174 174 174 31.7 200	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
44 Ru 14 Ru	124 5.6 100 152 163 180 35.2 100	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 1000	12.3 4.3 135 6.6 163 24.9	28.8 .700 	95.7 400 1137 111.2 165	7.6 14.7 138 71.7 .990 .300	139 99.9 167	24.3 140 88.4 168 27 100	100	32.4 .100 	171 143	23.8 3.1 172 21.9	42.7 .900	174 174 174 31.7 200	147	148 5.7 11.3 176 12.7 2.6 5.2	13.9	150 5.6 7.4	179	34.5 152 26.6 180	52.2	22.6
	124 5.6 100 152 163 180 35.2 100	100 125 7 153 52.2	18.6 11 126 18.7 .100	127 100 155 14.8	128 31.7 1.9 120.5 20.5 .060	129 26.4 157 15.7	130 34.5 4.1 .100 158 24.8 .100	131 21.2 159 100	11.8 12.4 12.4 12.4 13.2 26.9 1.00 21.8 2.34	12.8 12.8 133 100	134 10.4 2.4 162 25.5 1000	12.3 4.3 135 6.6 163 24.9	28.8 .700 	95.7 400 1137 111.2 165	7.6 14.7 138 71.7 .990 .300	139 99.9 167	24.3 140 88.4 168 27 100	100	32.4 .100 	171 143	23.8 3.1 172 21.9	42.7 .900	174 174 174 31.7 200	147 15.1 175	148 5.7 11.3 176 12.7 2.6 5.2	13.9 177 18.5 205	150 5.6 7.4 178	179	34.5 26.6 180 35.2	52.2	22.6

Relative Abundances of Stable Isotopes