

s Series of Representative Elements

1st period n = 1	IA		d Series of Transition Metals										p Series of Representative Elements					Noble Gases																				
	1 H 1s ¹ 1.00794	IIA	3 Li 2s ¹ 6.941	4 Be 2s ² 9.012182	11 Na 3s ¹ 22.989770	12 Mg 3s ² 24.3050	III B	IV B	V B	VI B	VII B	VIII	IX	X	IB	IIB	13 Al 3s ² 3p ¹ 26.981538	14 Si 3s ² 3p ² 28.0855	15 P 3s ² 3p ³ 30.973761	16 S 3s ² 3p ⁴ 32.065	17 Cl 3s ² 3p ⁵ 35.453	18 Ar 3s ² 3p ⁶ 39.948	2 He 1s ² 4.002602															
2nd period n = 2	3 Li 2s ¹ 6.941	4 Be 2s ² 9.012182	19 K 4s ¹ 39.0983	20 Ca 4s ² 40.078	21 Sc 3d ¹ 4s ² 44.955910	22 Ti 3d ² 4s ² 47.867	23 V 3d ³ 4s ² 50.9415	24 Cr 3d ⁵ 4s ¹ 51.9961	25 Mn 3d ⁵ 4s ² 54.938049	26 Fe 3d ⁶ 4s ² 55.845	27 Co* 3d ⁷ 4s ² 58.933200	28 Ni 3d ⁸ 4s ² 58.6934	29 Cu 3d ¹⁰ 4s ¹ 63.546	30 Zn 3d ¹⁰ 4s ² 63.39	31 Ga 4s ² 4p ¹ 69.723	32 Ge 4s ² 4p ² 72.64	33 As 4s ² 4p ³ 74.92160	34 Se 4s ² 4p ⁴ 78.96	35 Br 4s ² 4p ⁵ 79.904	36 Kr 4s ² 4p ⁶ 83.80	5 B 2s ² 2p ¹ 10.811	6 C 2s ² 2p ² 12.0107	7 N 2s ² 2p ³ 14.00674	8 O 2s ² 2p ⁴ 15.9994	9 F 2s ² 2p ⁵ 18.9984032	10 Ne 2s ² 2p ⁶ 20.1797												
3rd period n = 3	11 Na 3s ¹ 22.989770	12 Mg 3s ² 24.3050	37 Rb 5s ¹ 85.4678	38 Sr 5s ² 87.62	39 Y 4d ¹ 5s ² 88.90585	40 Zr 4d ² 5s ² 91.224	41 Nb 4d ⁴ 5s ¹ 92.90638	42 Mo 4d ⁵ 5s ¹ 95.94	43 Tc 4d ⁵ 5s ¹ 97.9072*	44 Ru 4d ⁷ 5s ¹ 101.07	45 Rh 4d ⁸ 5s ¹ 102.90550	46 Pd 4d ¹⁰ 106.42	47 Ag 4d ¹⁰ 5s ¹ 107.8682	48 Cd 4d ¹⁰ 5s ² 112.411	49 In 5s ² 5p ¹ 114.818	50 Sn 5s ² 5p ² 118.710	51 Sb 5s ² 5p ³ 121.760	52 Te 5s ² 5p ⁴ 127.60	53 I 5s ² 5p ⁵ 126.90447	54 Xe 5s ² 5p ⁶ 131.293	13 Al 3s ² 3p ¹ 26.981538	14 Si 3s ² 3p ² 28.0855	15 P 3s ² 3p ³ 30.973761	16 S 3s ² 3p ⁴ 32.065	17 Cl 3s ² 3p ⁵ 35.453	18 Ar 3s ² 3p ⁶ 39.948												
4th period n = 4	19 K 4s ¹ 39.0983	20 Ca 4s ² 40.078	55 Cs 6s ¹ 132.90545	56 Ba 6s ² 137.327	57 La 5d ¹ 6s ² 138.9055	72 Hf 4f ¹⁴ 5d ² 6s ² 178.49	73 Ta 5d ³ 6s ² 180.9479	74 W 5d ⁴ 6s ² 183.84	75 Re 5d ⁵ 6s ² 186.207	76 Os 5d ⁶ 6s ² 190.23	77 Ir 5d ⁷ 6s ² 192.217	78 Pt 5d ⁹ 6s ¹ 195.078	79 Au 5d ¹⁰ 6s ¹ 196.96655	80 Hg 5d ¹⁰ 6s ² 200.59	81 Tl 6s ² 6p ¹ 204.3833	82 Pb 6s ² 6p ² 207.2	83 Bi 6s ² 6p ³ 208.98038	84 Po 6s ² 6p ⁴ 208.9824*	85 At 6s ² 6p ⁵ 209.9871*	86 Rn 6s ² 6p ⁶ 222.0176*	37 Rb 5s ¹ 85.4678	38 Sr 5s ² 87.62	39 Y 4d ¹ 5s ² 88.90585	40 Zr 4d ² 5s ² 91.224	41 Nb 4d ⁴ 5s ¹ 92.90638	42 Mo 4d ⁵ 5s ¹ 95.94	43 Tc 4d ⁵ 5s ¹ 97.9072*	44 Ru 4d ⁷ 5s ¹ 101.07	45 Rh 4d ⁸ 5s ¹ 102.90550	46 Pd 4d ¹⁰ 106.42	47 Ag 4d ¹⁰ 5s ¹ 107.8682	48 Cd 4d ¹⁰ 5s ² 112.411	49 In 5s ² 5p ¹ 114.818	50 Sn 5s ² 5p ² 118.710	51 Sb 5s ² 5p ³ 121.760	52 Te 5s ² 5p ⁴ 127.60	53 I 5s ² 5p ⁵ 126.90447	54 Xe 5s ² 5p ⁶ 131.293
5th period n = 5	37 Rb 5s ¹ 85.4678	38 Sr 5s ² 87.62	87 Fr 7s ¹ 223.0197*	88 Ra 7s ² 226.0254*	89 Ac 6d ¹ 7s ² 227.0277*	104 Rf 5f ¹⁴ 6d ³ 7s ² 261.1088*	105 Db 5f ¹⁴ 6d ³ 7s ² 262.1141*	106 Sg 5f ¹⁴ 6d ⁴ 7s ² 266.1219*	107 Bh 5f ¹⁴ 6d ⁵ 7s ² 264.12*	108 Hs	109 Mt 5f ¹⁴ 6d ⁷ 7s ² 268.1388*	111 Uuu 5f ¹⁴ 6d ¹⁰ 7s ² 272.1535*	13 Al 3s ² 3p ¹ 26.981538	14 Si 3s ² 3p ² 28.0855	15 P 3s ² 3p ³ 30.973761	16 S 3s ² 3p ⁴ 32.065	17 Cl 3s ² 3p ⁵ 35.453	18 Ar 3s ² 3p ⁶ 39.948	5 B 2s ² 2p ¹ 10.811	6 C 2s ² 2p ² 12.0107	7 N 2s ² 2p ³ 14.00674	8 O 2s ² 2p ⁴ 15.9994	9 F 2s ² 2p ⁵ 18.9984032	10 Ne 2s ² 2p ⁶ 20.1797														
6th period n = 6	55 Cs 6s ¹ 132.90545	56 Ba 6s ² 137.327	57 La 5d ¹ 6s ² 138.9055	72 Hf 4f ¹⁴ 5d ² 6s ² 178.49	73 Ta 5d ³ 6s ² 180.9479	74 W 5d ⁴ 6s ² 183.84	75 Re 5d ⁵ 6s ² 186.207	76 Os 5d ⁶ 6s ² 190.23	77 Ir 5d ⁷ 6s ² 192.217	78 Pt 5d ⁹ 6s ¹ 195.078	79 Au 5d ¹⁰ 6s ¹ 196.96655	80 Hg 5d ¹⁰ 6s ² 200.59	81 Tl 6s ² 6p ¹ 204.3833	82 Pb 6s ² 6p ² 207.2	83 Bi 6s ² 6p ³ 208.98038	84 Po 6s ² 6p ⁴ 208.9824*	85 At 6s ² 6p ⁵ 209.9871*	86 Rn 6s ² 6p ⁶ 222.0176*	37 Rb 5s ¹ 85.4678	38 Sr 5s ² 87.62	39 Y 4d ¹ 5s ² 88.90585	40 Zr 4d ² 5s ² 91.224	41 Nb 4d ⁴ 5s ¹ 92.90638	42 Mo 4d ⁵ 5s ¹ 95.94	43 Tc 4d ⁵ 5s ¹ 97.9072*	44 Ru 4d ⁷ 5s ¹ 101.07	45 Rh 4d ⁸ 5s ¹ 102.90550	46 Pd 4d ¹⁰ 106.42	47 Ag 4d ¹⁰ 5s ¹ 107.8682	48 Cd 4d ¹⁰ 5s ² 112.411	49 In 5s ² 5p ¹ 114.818	50 Sn 5s ² 5p ² 118.710	51 Sb 5s ² 5p ³ 121.760	52 Te 5s ² 5p ⁴ 127.60	53 I 5s ² 5p ⁵ 126.90447	54 Xe 5s ² 5p ⁶ 131.293		
7th period n = 7	87 Fr 7s ¹ 223.0197*	88 Ra 7s ² 226.0254*	89 Ac 6d ¹ 7s ² 227.0277*	104 Rf 5f ¹⁴ 6d ³ 7s ² 261.1088*	105 Db 5f ¹⁴ 6d ³ 7s ² 262.1141*	106 Sg 5f ¹⁴ 6d ⁴ 7s ² 266.1219*	107 Bh 5f ¹⁴ 6d ⁵ 7s ² 264.12*	108 Hs	109 Mt 5f ¹⁴ 6d ⁷ 7s ² 268.1388*	111 Uuu 5f ¹⁴ 6d ¹⁰ 7s ² 272.1535*	d Series of Transition Metals																											
		Lanthanides		58 Ce 4f ¹ 5d ¹ 6s ² 140.116	59 Pr 4f ³ 5d ⁰ 6s ² 140.90765	60 Nd 4f ⁴ 5d ⁰ 6s ² 144.24	61 Pm 4f ⁵ 5d ⁰ 6s ² 144.9127*	62 Sm 4f ⁶ 5d ⁰ 6s ² 150.36	63 Eu 4f ⁷ 5d ⁰ 6s ² 151.964	64 Gd 4f ⁷ 5d ¹ 6s ² 157.25	65 Tb 4f ⁹ 5d ⁰ 6s ² 158.92534	66 Dy 4f ¹⁰ 5d ⁰ 6s ² 162.50	67 Ho 4f ¹¹ 5d ⁰ 6s ² 164.93032	68 Er 4f ¹² 5d ⁰ 6s ² 167.259	69 Tm 4f ¹³ 5d ⁰ 6s ² 168.93421	70 Yb 4f ¹⁴ 5d ⁰ 6s ² 173.04	71 Lu 4f ¹⁴ 5d ¹ 6s ² 174.967																					
		Actinides		90 Th 5f ⁶ 6d ² 7s ² 232.0381*	91 Pa 5f ⁶ 6d ¹ 7s ² 231.03588*	92 U 5f ⁶ 6d ¹ 7s ² 238.02891	93 Np 5f ⁶ 6d ¹ 7s ² 237.0482*	94 Pu 5f ⁶ 6d ¹ 7s ² 244.0642*	95 Am 5f ⁷ 6d ⁰ 7s ² 243.0614*	96 Cm 5f ⁷ 6d ¹ 7s ² 247.0704*	97 Bk 5f ⁸ 6d ⁰ 7s ² 247.0703*	98 Cf 5f ⁸ 6d ¹ 7s ² 251.0796*	99 Es 5f ⁹ 6d ⁰ 7s ² 252.0830*	100 Fm 5f ⁹ 6d ¹ 7s ² 257.0951*	101 Md 5f ¹⁰ 6d ⁰ 7s ² 258.0984*	102 No 5f ¹⁰ 6d ¹ 7s ² 259.1010*	103 Lr 5f ¹⁴ 6d ¹ 7s ² 262.1097*																					

*Relative Atomic Mass of the isotope of that element of longest known half-life.

Reprinted with changes from U. Kask, *Chemistry: Structure and Changes of Matter*, Barnes & Noble, Inc., New York, 1969.