

Periodic Table of the Elements Ground State Electron Configurations

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About Chemistry

1A												3A 4A 5A 6A 7A						8A			
1	2A											3A	4A	5A	6A	7A	8A				
1 H <small>1s¹</small>																	2 He <small>1s²</small>				
3 Li <small>1s² 2s¹</small>	4 Be <small>1s² 2s²</small>											5 B <small>1s² 2s² 2p¹</small>	6 C <small>1s² 2s² 2p²</small>	7 N <small>1s² 2s² 2p³</small>	8 O <small>1s² 2s² 2p⁴</small>	9 F <small>1s² 2s² 2p⁵</small>	10 Ne <small>1s² 2s² 2p⁶</small>				
11 Na <small>[Ne] 3s¹</small>	12 Mg <small>[Ne] 3s²</small>											13 Al <small>[Ne] 3s² 3p¹</small>	14 Si <small>[Ne] 3s² 3p²</small>	15 P <small>[Ne] 3s² 3p³</small>	16 S <small>[Ne] 3s² 3p⁴</small>	17 Cl <small>[Ne] 3s² 3p⁵</small>	18 Ar <small>[Ne] 3s² 3p⁶</small>				
		3B		4B		5B		6B		7B		8B		1B		2B					
19 K <small>[Ar] 4s¹</small>	20 Ca <small>[Ar] 4s²</small>	21 Sc <small>[Ar] 3d¹ 4s²</small>	22 Ti <small>[Ar] 3d² 4s²</small>	23 V <small>[Ar] 3d³ 4s²</small>	24 Cr <small>[Ar] 3d⁵ 4s¹</small>	25 Mn <small>[Ar] 3d⁵ 4s²</small>	26 Fe <small>[Ar] 3d⁶ 4s²</small>	27 Co <small>[Ar] 3d⁷ 4s²</small>	28 Ni <small>[Ar] 3d⁸ 4s²</small>	29 Cu <small>[Ar] 3d¹⁰ 4s¹</small>	30 Zn <small>[Ar] 3d¹⁰ 4s²</small>	31 Ga <small>[Ar] 3d¹⁰ 4s² 4p¹</small>	32 Ge <small>[Ar] 3d¹⁰ 4s² 4p²</small>	33 As <small>[Ar] 3d¹⁰ 4s² 4p³</small>	34 Se <small>[Ar] 3d¹⁰ 4s² 4p⁴</small>	35 Br <small>[Ar] 3d¹⁰ 4s² 4p⁵</small>	36 Kr <small>[Ar] 3d¹⁰ 4s² 4p⁶</small>				
37 Rb <small>[Kr] 5s¹</small>	38 Sr <small>[Kr] 5s²</small>	39 Y <small>[Kr] 4d¹ 5s²</small>	40 Zr <small>[Kr] 4d² 5s²</small>	41 Nb <small>[Kr] 4d⁴ 5s¹</small>	42 Mo <small>[Kr] 4d⁵ 5s¹</small>	43 Tc <small>[Kr] 4d⁵ 5s²</small>	44 Ru <small>[Kr] 4d⁷ 5s¹</small>	45 Rh <small>[Kr] 4d⁸ 5s¹</small>	46 Pd <small>[Kr] 4d¹⁰</small>	47 Ag <small>[Kr] 4d¹⁰ 5s¹</small>	48 Cd <small>[Kr] 4d¹⁰ 5s²</small>	49 In <small>[Kr] 4d¹⁰ 5s² 5p¹</small>	50 Sn <small>[Kr] 4d¹⁰ 5s² 5p²</small>	51 Sb <small>[Kr] 4d¹⁰ 5s² 5p³</small>	52 Te <small>[Kr] 4d¹⁰ 5s² 5p⁴</small>	53 I <small>[Kr] 4d¹⁰ 5s² 5p⁵</small>	54 Xe <small>[Kr] 4d¹⁰ 5s² 5p⁶</small>				
55 Cs <small>[Xe] 6s¹</small>	56 Ba <small>[Xe] 6s²</small>	57-71 <small>Lanthanides</small>		72 Hf <small>[Xe] 4f¹⁴ 5d² 6s²</small>	73 Ta <small>[Xe] 4f¹⁴ 5d³ 6s²</small>	74 W <small>[Xe] 4f¹⁴ 5d⁴ 6s²</small>	75 Re <small>[Xe] 4f¹⁴ 5d⁵ 6s²</small>	76 Os <small>[Xe] 4f¹⁴ 5d⁶ 6s²</small>	77 Ir <small>[Xe] 4f¹⁴ 5d⁷ 6s²</small>	78 Pt <small>[Xe] 4f¹⁴ 5d⁹ 6s¹</small>	79 Au <small>[Xe] 4f¹⁴ 5d¹⁰ 6s¹</small>	80 Hg <small>[Xe] 4f¹⁴ 5d¹⁰ 6s²</small>	81 Tl <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p¹</small>	82 Pb <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p²</small>	83 Bi <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p³</small>	84 Po <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁴</small>	85 At <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁵</small>	86 Rn <small>[Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁶</small>			
87 Fr <small>[Rn] 7s¹</small>	88 Ra <small>[Rn] 7s²</small>	89-103 <small>Actinides</small>		104 Rf <small>[Rn] 5f¹⁴ 6d² 7s²</small>	105 Db <small>[Rn] 5f¹⁴ 6d³ 7s²</small>	106 Sg <small>[Rn] 5f¹⁴ 6d⁴ 7s²</small>	107 Bh <small>[Rn] 5f¹⁴ 6d⁵ 7s²</small>	108 Hs <small>[Rn] 5f¹⁴ 6d⁶ 7s²</small>	109 Mt <small>[Rn] 5f¹⁴ 6d⁷ 7s²</small>	110 Ds <small>[Rn] 5f¹⁴ 6d⁸ 7s²</small>	111 Rg <small>[Rn] 5f¹⁴ 6d⁹ 7s²</small>	112 Cn <small>[Rn] 5f¹⁴ 6d¹⁰ 7s²</small>	113 Uut <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p¹</small>	114 Fl <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p²</small>	115 Uup <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p³</small>	116 Lv <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p⁴</small>	117 Uus <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p⁵</small>	118 Uuo <small>[Rn] 5f¹⁴ 6d¹⁰ 7s² 7p⁶</small>			

Lanthanides	57 La <small>[Xe] 5d¹ 6s²</small>	58 Ce <small>[Xe] 4f¹ 6s²</small>	59 Pr <small>[Xe] 4f² 6s²</small>	60 Nd <small>[Xe] 4f³ 6s²</small>	61 Pm <small>[Xe] 4f⁴ 6s²</small>	62 Sm <small>[Xe] 4f⁶ 6s²</small>	63 Eu <small>[Xe] 4f⁷ 6s²</small>	64 Gd <small>[Xe] 4f⁷ 5d¹ 6s²</small>	65 Tb <small>[Xe] 4f⁹ 6s²</small>	66 Dy <small>[Xe] 4f¹⁰ 6s²</small>	67 Ho <small>[Xe] 4f¹¹ 6s²</small>	68 Er <small>[Xe] 4f¹² 6s²</small>	69 Tm <small>[Xe] 4f¹³ 6s²</small>	70 Yb <small>[Xe] 4f¹⁴ 6s²</small>	71 Lu <small>[Xe] 4f¹⁴ 5d¹ 6s²</small>
Actinides	89 Ac <small>[Rn] 6d¹ 7s²</small>	90 Th <small>[Rn] 6d² 7s²</small>	91 Pa <small>[Rn] 5f² 7s²</small>	92 U <small>[Rn] 5f³ 7s²</small>	93 Np <small>[Rn] 5f⁴ 7s²</small>	94 Pu <small>[Rn] 5f⁶ 7s²</small>	95 Am <small>[Rn] 5f⁷ 7s²</small>	96 Cm <small>[Rn] 5f⁷ 6d¹ 7s²</small>	97 Bk <small>[Rn] 5f⁹ 7s²</small>	98 Cf <small>[Rn] 5f¹⁰ 7s²</small>	99 Es <small>[Rn] 5f¹¹ 7s²</small>	100 Fm <small>[Rn] 5f¹² 7s²</small>	101 Md <small>[Rn] 5f¹³ 7s²</small>	102 No <small>[Rn] 5f¹⁴ 7s²</small>	103 Lr <small>[Rn] 5f¹⁴ 6d¹ 7s²</small>

* values are based on theory and are not verified