Electron configurations of the elements

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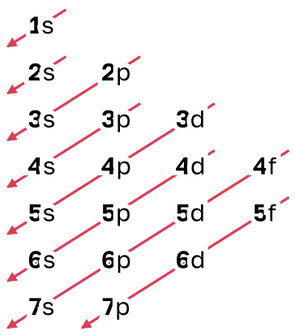
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1 H Hydrogen [He] 2s¹																	**2** He Helium 1s²
3 Li Lithium [He] 2s¹	**4** Be Beryllium [He] 2s²											**5** B Boron [He] 2s² 2p¹	**6** C Carbon [He] 2s² 2p²	**7** N Nitrogen [He] 2s² 2p³	**8** O Oxygen [He] 2s² 2p⁴	**9** F Fluorine [He] 2s² 2p⁵	**10** Ne Neon [He] 2s² 2p⁶
11 Na Sodium [Ne] 3s¹	**12** Mg Magnesium [Ne] 3s²											**13** Al Aluminium [Ne] 3s² 3p¹	**14** Si Silicon [Ne] 3s² 3p²	**15** P Phosphorus [Ne] 3s² 3p³	**16** S Sulfur [Ne] 3s² 3p⁴	**17** Cl Chlorine [Ne] 3s² 3p⁵	**18** Ar Argon [Ne] 3s² 3p⁶
19 K Potassium [Ar] 4s¹	**20** Ca Calcium [Ar] 4s²	**21** Sc Scandium [Ar] 3d¹ 4s²	**22** Ti Titanium [Ar] 3d² 4s²	**23** V Vanadium [Ar] 3d³ 4s²	**24** Cr Chromium [Ar] 3d⁵ 4s¹	**25** Mn Manganese [Ar] 3d⁵ 4s²	**26** Fe Iron [Ar] 3d⁶ 4s²	**27** Co Cobalt [Ar] 3d⁷ 4s²	**28** Ni Nickel [Ar] 3d⁸ 4s²	**29** Cu Copper [Ar] 3d¹⁰ 4s¹	**30** Zn Zinc [Ar] 3d¹⁰ 4s²	**31** Ga Gallium [Ar] 3d¹⁰ 4s² 4p¹	**32** Ge Germanium [Ar] 3d¹⁰ 4s² 4p²	**33** As Arsenic [Ar] 3d¹⁰ 4s² 4p³	**34** Se Selenium [Ar] 3d¹⁰ 4s² 4p⁴	**35** Br Bromine [Ar] 3d¹⁰ 4s² 4p⁵	**36** Kr Krypton [Ar] 3d¹⁰ 4s² 4p⁶
37 Rb Rubidium [Kr] 5s¹	**38** Sr Strontium [Kr] 5s²	**39** Y Yttrium [Kr] 4d¹ 5s²	**40** Zr Zirconium [Kr] 4d² 5s²	**41** Nb Niobium [Kr] 4d⁴ 5s¹	**42** Mo Molybdenum [Kr] 4d⁵ 5s¹	**43** Tc Technetium [Kr] 4d⁵ 5s²	**44** Ru Ruthenium [Kr] 4d⁷ 5s¹	**45** Rh Rhodium [Kr] 4d⁸ 5s¹	**46** Pd Palladium [Kr] 4d¹⁰	**47** Ag Silver [Kr] 4d¹⁰ 5s¹	**48** Cd Cadmium [Kr] 4d¹⁰ 5s²	**49** In Indium [Kr] 4d¹⁰ 5s² 5p¹	**50** Sn Tin [Kr] 4d¹⁰ 5s² 5p²	**51** Sb Antimony [Kr] 4d¹⁰ 5s² 5p³	**52** Te Tellurium [Kr] 4d¹⁰ 5s² 5p⁴	**53** I Iodine [Kr] 4d¹⁰ 5s² 5p⁵	**54** Xe Xenon [Kr] 4d¹⁰ 5s² 5p⁶
55 Cs Caesium [Xe] 6s¹	**56** Ba Barium [Xe] 6s²	57–71	**72** Hf Hafnium [Xe] 4f¹⁴ 5d² 6s²	**73** Ta Tantalum [Xe] 4f¹⁴ 5d³ 6s²	**74** W Tungsten [Xe] 4f¹⁴ 5d⁴ 6s²	**75** Re Rhenium [Xe] 4f¹⁴ 5d⁵ 6s²	**76** Os Osmium [Xe] 4f¹⁴ 5d⁶ 6s²	**77** Ir Iridium [Xe] 4f¹⁴ 5d⁷ 6s²	**78** Pt Platinum [Xe] 4f¹⁴ 5d⁹ 6s¹	**79** Au Gold [Xe] 4f¹⁴ 5d¹⁰ 6s¹	**80** Hg Mercury [Xe] 4f¹⁴ 5d¹⁰ 6s²	**81** Tl Thallium [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p¹	**82** Pb Lead [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p²	**83** Bi Bismuth [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p³	**84** Po Polonium [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁴	**85** At Astatine [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁵	**86** Rn Radon [Xe] 4f¹⁴ 5d¹⁰ 6s² 6p⁶
87 Fr Francium [Rn] 7s¹	**88** Ra Radium [Rn] 7s²	89–103	**104** Rf Rutherfordium [Rn]* 5f¹⁴ 6d² 7s²	**105** Db Dubnium [Rn]* 5f¹⁴ 6d³ 7s²	**106** Sg Seaborgium [Rn]* 5f¹⁴ 6d⁴ 7s²	**107** Bh Bohrium [Rn]* 5f¹⁴ 6d⁵ 7s²	**108** Hs Hassium [Rn]* 5f¹⁴ 6d⁶ 7s²	**109** Mt Meitnerium [Rn]* 5f¹⁴ 6d⁷ 7s²	**110** Ds Darmstadtium [Rn]* 5f¹⁴ 6d⁸ 7s²	**111** Rg Roentgenium [Rn]* 5f¹⁴ 6d⁹ 7s²	**112** Cn Copernicium [Rn]* 5f¹⁴ 6d¹⁰ 7s²	**113** Nh Nihonium [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p¹*	**114** Fl Flerovium [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p²*	**115** Mc Moscovium [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p³*	**116** Lv Livermorium [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p⁴*	**117** Ts Tennessine [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p⁵*	**118** Og Oganesson [Rn]* 5f¹⁴ 6d¹⁰ 7s² 7p⁶*

57 La Lanthanum [Xe] 5d¹ 6s²	**58** Ce Cerium [Xe] 4f¹ 5d¹ 6s²	**59** Pr Praseodymium [Xe] 4f³ 6s²	**60** Nd Neodymium [Xe] 4f⁴ 6s²	**61** Pm Promethium [Xe] 4f⁵ 6s²	**62** Sm Samarium [Xe] 4f⁶ 6s²	**63** Eu Europium [Xe] 4f⁷ 6s²	**64** Gd Gadolinium [Xe] 4f⁷ 5d¹ 6s²	**65** Tb Terbium [Xe] 4f⁹ 6s²	**66** Dy Dysprosium [Xe] 4f¹⁰ 6s²	**67** Ho Holmium [Xe] 4f¹¹ 6s²	**68** Er Erbium [Xe] 4f¹² 6s²	**69** Tm Thulium [Xe] 4f¹³ 6s²	**70** Yb Ytterbium [Xe] 4f¹⁴ 6s²	**71** Lu Lutetium [Xe] 4f¹⁴ 5d¹ 6s²
89 Ac Actinium [Rn] 6d¹ 7s²	**90** Th Thorium [Rn] 6d² 7s²	**91** Pa Protactinium [Rn] 5f² 6d¹ 7s²	**92** U Uranium [Rn] 5f³ 6d¹ 7s²	**93** Np Neptunium [Rn] 5f⁴ 6d¹ 7s²	**94** Pu Plutonium [Rn] 5f⁶ 7s²	**95** Am Americium [Rn] 5f⁷ 7s²	**96** Cm Curium [Rn] 5f⁷ 6d¹ 7s²	**97** Bk Berkelium [Rn] 5f⁹ 7s²	**98** Cf Californium [Rn] 5f¹⁰ 7s²	**99** Es Einsteinium [Rn] 5f¹¹ 7s²	**100** Fm Fermium [Rn] 5f¹² 7s²	**101** Md Mendelevium [Rn] 5f¹³ 7s²	**102** No Nobelium [Rn] 5f¹⁴ 7s²	**103** Lr Lawrencium [Rn]* 5f¹⁴ 7s² 7p¹*

26
Fe
Iron
[Ar] 3d⁶ 4s²

Atomic number
Symbol
Name
Electron configuration

Order in which subshells fill



s-block
p-block
d-block
f-block

How electrons are arranged in subshells. The bracket stands for the previous noble gas; the superscript is the number of electrons in a subshell.

* predicted

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