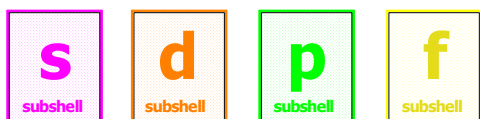


Periodic Table of the Elements

shells (energy levels)

shells (energy levels)



Note:
Atomic number = # of protons = # of electrons
Atomic mass (rounded to nearest integer) = # of protons + # of neutrons

KEY

2- ← most common oxidation number

oxygen ← element name

atomic number → 8

O ← symbol

2001 atomic mass → 15.9994(3)

p⁴ ← orbital

Note: The last significant figure is reliable to ±1 except where greater uncertainty is given in parentheses (). Mass numbers given in brackets [] are of the longest lived isotopes.

| | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|--------------------------------------|-----------------------------------|---------------------------------------|-----------------------------------|-------------------------------------|---------------------------------|--------------------------------|--------------------------|-------------------------|--------------------------|------------------------|--------------------------|------------------------|-----------------------|-------------------------|------------------------|
| I A 1+ | II A 2+ | | III A 3+ | IV A | V A 3- | VI A 2- | VII A 1- | VIII A | | | | | | | | | | |
| 1 hydrogen 1 H 1.00794(7) | 2 helium 2 He 4.002602(2) | | | | | | | | | | | | | | | | | |
| 2 lithium 3 Li 6.941(2) | beryllium 4 Be 9.012182(3) | | boron 5 B 10.811(7) | carbon 6 C 12.0107(8) | nitrogen 7 N 14.00674(7) | oxygen 8 O 15.9994(3) | fluorine 9 F 18.9984032(5) | neon 10 Ne 20.1797(6) | | | | | | | | | | |
| 3 sodium 11 Na 22.989770(2) | magnesium 12 Mg 24.3050(6) | | aluminum 13 Al 26.981538(2) | silicon 14 Si 28.0855(3) | phosphorus 15 P 30.973761(2) | sulfur 16 S 32.065(5) | chlorine 17 Cl 35.453(2) | argon 18 Ar 39.948(1) | | | | | | | | | | |
| 4 potassium 19 K 39.0983(1) | calcium 20 Ca 40.078(4) | III B 21 Sc 44.955910(8) | IV B 22 Ti 47.867(1) | V B 23 V 50.9415(1) | VI B 24 Cr 51.9961(6) | VII B 25 Mn 54.938049(9) | VIII B 26 Fe 55.845(2) | I B 27 Co 58.933200(9) | II B 28 Ni 58.6934(2) | 29 Cu 63.546(3) | 30 Zn 65.409(4) | 31 Ga 69.723(1) | 32 Ge 72.64(1) | 33 As 74.92160(2) | 34 Se 78.96(3) | 35 Br 79.904(1) | 36 Kr 83.798(2) | |
| 5 rubidium 37 Rb 85.4678(3) | strontium 38 Sr 87.62(1) | 39 Y 88.90585(2) | 40 Zr 91.224(2) | 41 Nb 92.90638(2) | 42 Mo 95.94(1) | [98] | 43 Tc [98] | 44 Ru 101.07(2) | 45 Rh 102.90550(2) | 46 Pd 106.42(1) | 47 Ag 107.8682(2) | 48 Cd 112.411(8) | 49 In 114.818(3) | 50 Sn 118.710(7) | 51 Sb 121.760(1) | 52 Te 127.60(3) | 53 I 126.90447(3) | 54 Xe 131.293(6) |
| 6 caesium 55 Cs 132.90545(2) | barium 56 Ba 137.327(7) | *5 57 Lu 174.967(1) | 58 Hf 178.49(2) | 59 Ta 180.9479(1) | 60 W 183.84(1) | 61 Re 186.207(1) | 62 Os 190.23(3) | 63 Ir 192.227(3) | 64 Pt 195.078(2) | 65 Au 196.96655(2) | 66 Hg 200.59(2) | 67 Tl 204.3833(2) | 68 Pb 207.2(1) | 69 Bi 208.98038(2) | 70 Po [209] | 71 At [210] | 72 Rn [222] | |
| 7 francium 87 Fr [223] | radium 88 Ra [226] | **6 103 Lr [262] | 104 Rf [261] | 105 Db [262] | 106 Sg [266] | 107 Bh [264] | 108 Hs [269] | 109 Mt [268] | 110 Ds [271] | 111 Rg [280] | 112 Cn [285] | 113 Uut [284] | 114 Uuq [289] | 115 Uup [288] | 116 Uuh [293] | 117 Uus [294] | 118 Uuo [294] | |
| s ¹ | s ² | d ¹ | d ² | d ³ | d ⁴ | d ⁵ | d ⁶ | d ⁷ | d ⁸ | d ⁹ | d ¹⁰ | p ¹ | p ² | p ³ | p ⁴ | p ⁵ | p ⁶ | |
| | | 4 lanthanoids 57 La 138.9055(2) | 58 Ce 140.116(1) | 59 Pr 140.90765(2) | 60 Nd 144.24(3) | 61 Pm [145] | 62 Sm 150.36(3) | 63 Eu 151.964(1) | 64 Gd 157.25(3) | 65 Tb 158.92534(2) | 66 Dy 162.500(1) | 67 Ho 164.93032(2) | 68 Er 167.259(3) | 69 Tm 168.93421(2) | 70 Yb 173.04(3) | | | |
| | | 5 actinoids 89 Ac [227] | 90 Th 232.0381(1) | 91 Pa 231.03588(2) | 92 U 238.02891(3) | 93 Np [237] | 94 Pu [244] | 95 Am [243] | 96 Cm [247] | 97 Bk [247] | 98 Cf [251] | 99 Es [252] | 100 Fm [257] | 101 Md [258] | 102 No [259] | | | |
| | | f ¹ | f ² | f ³ | f ⁴ | f ⁵ | f ⁶ | f ⁷ | f ⁸ | f ⁹ | f ¹⁰ | f ¹¹ | f ¹² | f ¹³ | f ¹⁴ | | | |

All atomic mass data is from WebElements: <http://www.webelements.com/>