

Alkali metals		Alkaline earth metals		Transition metals: usually 2+ or 3+, varies by element								Boron group	Carbon group	Pnictogens	Chalcogens	Halogens	Noble gases
1+	2+											3+	varies	3-	2-	1-	-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18

1 NM
H
Hydrogen
1+ 1-

2 NG
He
Helium
—

3 AM
Li
Lithium
1+

4 AE
Be
Beryllium
2+

5 MD
B
Boron
3+

6 NM
C
Carbon
4+ 4-

7 NM
N
Nitrogen
3-

8 NM
O
Oxygen
2-

9 HL
F
Fluorine
1-

10 NG
Ne
Neon
—

11 AM
Na
Sodium
1+

12 AE
Mg
Magnesium
2+

13 PM
Al
Aluminum
3+

14 MD
Si
Silicon
4+ 4-

15 NM
P
Phosphorus
3-

16 NM
S
Sulfur
2-

17 HL
Cl
Chlorine
1-

18 NG
Ar
Argon
—

19 AM
K
Potassium
1+

20 AE
Ca
Calcium
2+

21 TM
Sc
Scandium
3+

22 TM
Ti
Titanium
3+ 4+

23 TM
V
Vanadium
2+ 3+ 4+ 5+

24 TM
Cr
Chromium
2+ 3+

25 TM
Mn
Manganese
2+ 3+ 4+

26 TM
Fe
Iron
2+ 3+

27 TM
Co
Cobalt
2+ 3+

28 TM
Ni
Nickel
2+

29 TM
Cu
Copper
1+ 2+

30 TM
Zn
Zinc
2+

31 PM
Ga
Gallium
3+

32 MD
Ge
Germanium
2+ 4+

33 MD
As
Arsenic
3+ 3-

34 NM
Se
Selenium
2-

35 HL
Br
Bromine
1-

36 NG
Kr
Krypton
—

37 AM
Rb
Rubidium
1+

38 AE
Sr
Strontium
2+

39 TM
Y
Yttrium
3+

40 TM
Zr
Zirconium
4+

41 TM
Nb
Niobium
3+ 5+

42 TM
Mo
Molybdenum
4+ 6+

43 TM
Tc
Technetium
4+ 7+

44 TM
Ru
Ruthenium
3+ 4+

45 TM
Rh
Rhodium
3+

46 TM
Pd
Palladium
2+ 4+

47 TM
Ag
Silver
1+

48 TM
Cd
Cadmium
2+

49 PM
In
Indium
3+

50 PM
Sn
Tin
2+ 4+

51 MD
Sb
Antimony
3+

52 MD
Te
Tellurium
2-

53 HL
I
Iodine
1-

54 NG
Xe
Xenon
—

55 AM
Cs
Cesium
1+

56 AE
Ba
Barium
2+

57-71
La-Lu

72 TM
Hf
Hafnium
4+

73 TM
Ta
Tantalum
5+

74 TM
W
Tungsten
4+ 6+

75 TM
Re
Rhenium
4+ 7+

76 TM
Os
Osmium
3+ 4+

77 TM
Ir
Iridium
3+ 4+

78 TM
Pt
Platinum
2+ 4+

79 TM
Au
Gold
1+ 3+

80 TM
Hg
Mercury
1+ 2+

81 PM
Tl
Thallium
1+ 3+

82 PM
Pb
Lead
2+ 4+

83 PM
Bi
Bismuth
3+

84 MD
Po
Polonium
2+ 4+

85 HL
At
Astatine
1-

86 NG
Rn
Radon
—

87 AM
Fr
Francium
1+

88 AE
Ra
Radium
2+

89-103
Ac-Lr

104 TM
Rf
Rutherfordium
—

105 TM
Db
Dubnium
—

106 TM
Sg
Seaborgium
—

107 TM
Bh
Bohrium
—

108 TM
Hs
Hassium
—

109 UP
Mt
Meitnerium
—

110 UP
Ds
Darmstadtium
—

111 UP
Rg
Roentgenium
—

112 UP
Cn
Copernicium
—

113 UP
Nh
Nihonium
—

114 UP
Fl
Flerovium
—

115 UP
Mc
Moscovium
—

116 UP
Lv
Livermorium
—

117 HL
Ts
Tennessine
—

118 NG
Og
Oganesson
—

HOW TO READ A TILE

Atomic number

Category code
see the line key

Symbol

Name

Common charges
bold = most common

LINE KEY

AM Alkali metals

AE Alkaline earth metals

TM Transition metals

PM Post-transition metals

MD Metalloids

NM Other nonmetals

HL Halogens

NG Noble gases

LN Lanthanides

AC Actinides

UP Unknown properties

*Mercury(I) exists as the Hg₂²⁺ ion (two mercury atoms).

Lanthanides

57 LN
La
Lanthanum
3+

58 LN
Ce
Cerium
3+ 4+

59 LN
Pr
Praseodymium
3+

60 LN
Nd
Neodymium
3+

61 LN
Pm
Promethium
3+

62 LN
Sm
Samarium
2+ 3+

63 LN
Eu
Europium
2+ 3+

64 LN
Gd
Gadolinium
3+

65 LN
Tb
Terbium
3+

66 LN
Dy
Dysprosium
3+

67 LN
Ho
Holmium
3+

68 LN
Er
Erbium
3+

69 LN
Tm
Thulium
3+

70 LN
Yb
Ytterbium
2+ 3+

71 LN
Lu
Lutetium
3+

Actinides

89 AC
Ac
Actinium
3+

90 AC
Th
Thorium
4+

91 AC
Pa
Protactinium
4+ 5+

92 AC
U
Uranium
3+ 4+

93 AC
Np
Neptunium
3+ 4+

94 AC
Pu
Plutonium
3+ 4+

95 AC
Am
Americium
3+

96 AC
Cm
Curium
3+

97 AC
Bk
Berkelium
3+ 4+

98 AC
Cf
Californium
3+

99 AC
Es
Einsteinium
3+

100 AC
Fm
Fermium
3+

101 AC
Md
Mendelevium
2+ 3+

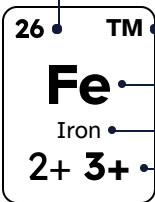
102 AC
No
Nobelium
2+ 3+

103 AC
Lr
Lawrencium
3+

Answer Key

Periodic Table Charges Quiz. Common ion charge of every element. The bold charge is the most common.

HOW TO READ A TILE



Atomic number

Category code
see the line key

Symbol

Name

Common charges
bold = most common

LINE KEY

AM

Alkali metals

AE

Alkaline earth metals

TM

Transition metals

PM

Post-transition metals

MD

Metalloids

NM

Other nonmetals

HL

Halogens

NG

Noble gases

LN

Lanthanides

AC

Actinides

UP

Unknown properties

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Transition metals