

Common Polyatomic Ions

acetate	$\text{C}_2\text{H}_3\text{O}_2^-$
ammonium	NH_4^+
arsenate	AsO_4^{3-}
arsenite	AsO_3^{3-}
azide	N_3^-
benzoate	$\text{C}_7\text{H}_5\text{O}_2^-$
borate	BO_3^{3-}
bromate	BrO_3^-
carbonate	CO_3^{2-}
chlorate	ClO_3^-
chlorite	ClO_2^-
chromate	CrO_4^{2-}
cyanide	CN^-
dichromate	$\text{Cr}_2\text{O}_7^{2-}$
dihydrogen phosphate	H_2PO_4^-
dihydrogen phosphite	H_2PO_3^-
hydrogen carbonate	HCO_3^-
hydrogen phosphate	HPO_4^{2-}
hydrogen phosphite	HPO_3^{2-}
hydrogen sulfate	HSO_4^-
hydrogen sulfide	HS^-
hydrogen sulfite	HSO_3^-
hydroxide	OH^-
hypochlorite	ClO^-
iodate	IO_3^-
manganate	MnO_4^{2-}
nitrate	NO_3^-
nitrite	NO_2^-
oxalate	$\text{C}_2\text{O}_4^{2-}$
perchlorate	ClO_4^-
permanganate	MnO_4^-
peroxide	O_2^{2-}
phosphate	PO_4^{3-}
phosphite	PO_3^{3-}
silicate	SiO_3^{2-}
sulfate	SO_4^{2-}
sulfite	SO_3^{2-}
tartrate	$\text{C}_4\text{H}_4\text{O}_6^{2-}$
thiocyanate	SCN^-
thiosulfate	$\text{S}_2\text{O}_3^{2-}$

AsO_3^{3-}	arsenite
AsO_4^{3-}	arsenate
BO_3^{3-}	borate
BrO_3^-	bromate
$\text{C}_2\text{H}_3\text{O}_2^-$	acetate
$\text{C}_2\text{O}_4^{2-}$	oxalate
$\text{C}_4\text{H}_4\text{O}_6^{2-}$	tartrate
$\text{C}_7\text{H}_5\text{O}_2^-$	benzoate
ClO^-	hypochlorite
ClO_2^-	chlorite
ClO_3^-	chlorate
ClO_4^-	perchlorate
CN^-	cyanide
CO_3^{2-}	carbonate
$\text{Cr}_2\text{O}_7^{2-}$	dichromate
CrO_4^{2-}	chromate
H_2PO_3^-	dihydrogen phosphite
H_2PO_4^-	dihydrogen phosphate
HCO_3^-	hydrogen carbonate
HPO_3^{2-}	hydrogen phosphite
HPO_4^{2-}	hydrogen phosphate
HS^-	hydrogen sulfide
HSO_3^-	hydrogen sulfite
HSO_4^-	hydrogen sulfate
IO_3^-	iodate
MnO_4^-	permanganate
MnO_4^{2-}	manganate
N_3^-	azide
NH_4^+	ammonium
NO_2^-	nitrite
NO_3^-	nitrate
O_2^{2-}	peroxide
OH^-	hydroxide
PO_3^{3-}	phosphite
PO_4^{3-}	phosphate
$\text{S}_2\text{O}_3^{2-}$	thiosulfate
SCN^-	thiocyanate
SiO_3^{2-}	silicate
SO_3^{2-}	sulfite
SO_4^{2-}	sulfate

1 H hydrogen 1.0 2.1																		18 He helium 4.0	
3 Li lithium 6.9 1.0	4 Be beryllium 9.0 1.5													5 B boron 10.8 2.0	6 C carbon 12.0 2.5	7 N nitrogen 14.0 3.0	8 O oxygen 16.0 3.5	9 F fluorine 19.0 4.0	10 Ne neon 20.2
11 Na sodium 23.0 0.9	12 Mg magnesium 24.3 1.2													13 Al aluminum 27.0 1.5	14 Si silicon 28.1 1.8	15 P phosphorus 31.0 2.1	16 S sulfur 32.1 2.5	17 Cl chlorine 35.5 3.0	18 Ar argon 39.9
19 K potassium 39.1 0.8	20 Ca calcium 40.1 1.0	21 Sc scandium 45.0 1.3	22 Ti titanium 47.9 1.5	23 V vanadium 50.9 1.6	24 Cr chromium 52.0 1.6	25 Mn manganese 54.9 1.5	26 Fe iron 55.8 1.8	27 Co cobalt 58.9 1.8	28 Ni nickel 58.7 1.8	29 Cu copper 63.5 1.9	30 Zn zinc 65.4 1.6	31 Ga gallium 69.7 1.6	32 Ge germanium 72.6 1.8	33 As arsenic 74.9 2.0	34 Se selenium 79.0 2.4	35 Br bromine 79.9 2.8	36 Kr krypton 83.8		
37 Rb rubidium 85.5 0.8	38 Sr strontium 87.6 1.0	39 Y yttrium 88.9 1.2	40 Zr zirconium 91.2 1.4	41 Nb niobium 92.9 1.6	42 Mo molybdenum 95.9 1.8	43 Tc technetium [98] 1.9	44 Ru ruthenium 101.1 2.2	45 Rh rhodium 102.9 2.2	46 Pd palladium 106.4 2.2	47 Ag silver 107.9 1.9	48 Cd cadmium 112.4 1.7	49 In indium 114.8 1.7	50 Sn tin 118.7 1.8	51 Sb antimony 121.8 1.9	52 Te tellurium 127.6 2.1	53 I iodine 126.9 2.5	54 Xe xenon 131.3		
55 Cs cesium 132.9 0.7	56 Ba barium 137.3 0.9	71 Lu lutetium 175.0 1.1	72 Hf hafnium 178.5 1.3	73 Ta tantalum 180.9 1.5	74 W tungsten 183.8 1.7	75 Re rhenium 186.2 1.9	76 Os osmium 190.2 2.2	77 Ir iridium 192.2 2.2	78 Pt platinum 195.1 2.2	79 Au gold 197.0 2.4	80 Hg mercury 200.6 1.9	81 Tl thallium 204.4 1.8	82 Pb lead 207.2 1.8	83 Bi bismuth 209.0 1.9	84 Po polonium [209] 2.0	85 At astatine [210] 2.2	86 Rn radon [222]		
87 Fr francium [223] 0.7	88 Ra radium [226] 0.9	103 Lr lawrencium [262]	104 Rf rutherfordium [267]	105 Db dubnium [268]	106 Sg seaborgium [271]	107 Bh bohrium [272]	108 Hs hassium [277]	109 Mt meitnerium [276]	110 Ds darmstadtium [281]	111 Rg roentgenium [280]	112 Uub ununbium [285]	113 Uut ununtrium [284]	114 Uuq ununquadium [289]	115 Uup ununpentium [288]	116 Uuh ununhexium [293]	117 Uus ununseptium [294]	118 Uuo ununoctium [294]		
57 La lanthanum 138.9 1.1	58 Ce cerium 140.1 1.1	59 Pr praseodymium 140.9 1.1	60 Nd neodymium 144.2 1.1	61 Pm promethium [145] 1.1	62 Sm samarium 150.4 1.1	63 Eu europium 152.0 1.1	64 Gd gadolinium 157.3 1.1	65 Tb terbium 158.9 1.1	66 Dy dysprosium 162.5 1.1	67 Ho holmium 164.9 1.1	68 Er erbium 167.3 1.1	69 Tm thulium 168.9 1.1	70 Yb ytterbium 173.0 1.1						
89 Ac actinium [227] 1.1	90 Th thorium 232.0 1.3	91 Pa protactinium 231.0 1.5	92 U uranium 238.0 1.7	93 Np neptunium [237] 1.3	94 Pu plutonium [244] 1.3	95 Am americium [243] 1.3	96 Cm curium [247] 1.3	97 Bk berkelium [247] 1.3	98 Cf californium [251] 1.3	99 Es einsteinium [252] 1.3	100 Fm fermium [257] 1.3	101 Md mendelevium [258] 1.3	102 No nobelium [259] 1.3						

Atomic Number

8

Valence
(most common first)

2

Symbol of Element

O

Atomic Mass

16.0

Electronegativity

3.5

Atomic Number → 8 Valence (most common first) → 2

Symbol of Element → O

Atomic Mass → 16.0 Electronegativity → 3.5