

Common Cations and Anions

| Name | Formula | Charge | Name | Formula | Charge | Name | Formula | Charge |
|--------------------------------|-------------------------------|--------|---|---|--------|----------------------|--|--------|
| aluminum | Al ³⁺ | +3 | magnesium | Mg ²⁺ | +2 | carbonate | CO ₃ ²⁻ | -2 |
| ammonium | NH ₄ ⁺ | +1 | manganese (II) | Mn ²⁺ | +2 | chlorate | ClO ₃ ⁻ | -1 |
| barium | Ba ²⁺ | +2 | manganese (III) | Mn ³⁺ | +3 | chloride | Cl ⁻ | -1 |
| cadmium | Cd ²⁺ | +2 | mercury (I) (mercurous) <i>{See note}</i> | Hg ₂ ²⁺ | 2 × +1 | chromate | CrO ₄ ²⁻ | -2 |
| calcium | Ca ²⁺ | +2 | mercury (II) (mercuric) | Hg ²⁺ | +2 | cyanate | OCN ⁻ | -1 |
| cesium | Cs ⁺ | +1 | potassium | K ⁺ | +1 | cyanide | CN ⁻ | -1 |
| chromium (II) | Cr ²⁺ | +2 | rubidium | Rb ⁺ | +1 | dichromate | Cr ₂ O ₇ ²⁻ | -2 |
| chromium (III) | Cr ³⁺ | +3 | scandium (III) | Sc ³⁺ | +3 | dihydrogen phosphate | H ₂ PO ₄ ⁻ | -1 |
| cobalt (II) (cobaltous) | Co ²⁺ | +2 | silver | Ag ⁺ | +1 | fluoride | F ⁻ | -1 |
| cobalt (III) (cobaltic) | Co ³⁺ | +3 | sodium | Na ⁺ | +1 | hydroxide | OH ⁻ | -1 |
| cobalt (IV) | Co ⁴⁺ | +4 | tin (II) (stannous) | Sn ²⁺ | +2 | iodate | IO ₃ ⁻ | -1 |
| copper (I) (cuprous) | Cu ⁺ | +1 | tin (IV) (stannic) | Sn ⁴⁺ | +4 | iodide | I ⁻ | -1 |
| copper (II) (cupric) | Cu ²⁺ | +2 | titanium (II) | Ti ²⁺ | +2 | nitrate | NO ₃ ⁻ | -1 |
| gold (I) (aurous) | Au ⁺ | +1 | titanium (III) | Ti ³⁺ | +3 | nitrite | NO ₂ ⁻ | -1 |
| gold (III) (auric) | Au ³⁺ | +3 | titanium (IV) | Ti ⁴⁺ | +4 | nitride | N ³⁻ | -3 |
| hydrogen <i>{See note}</i> | H ⁺ | +1 | vanadium (II) | V ²⁺ | +2 | oxalate | C ₂ O ₄ ²⁻ | -2 |
| hydronium <i>{See note}</i> | H ₃ O ⁺ | +1 | vanadium (III) | V ³⁺ | +3 | oxide | O ²⁻ | -2 |
| iron (II) (ferrous) | Fe ²⁺ | +2 | vanadium (IV) | V ⁴⁺ | +4 | permanganate | MnO ₄ ⁻ | -1 |
| iron (III) (ferric) | Fe ³⁺ | +3 | zinc | Zn ²⁺ | +2 | phosphate | PO ₄ ³⁻ | -3 |
| lead (II) (plumbous) | Pb ²⁺ | +2 | acetate | C ₂ H ₃ O ₂ ⁻ | -1 | sulfate | SO ₄ ²⁻ | -2 |
| lead (IV) (plumbic) | Pb ⁴⁺ | +4 | bicarbonate (hydrogen carbonate) | HCO ₃ ⁻ | -1 | sulfite | SO ₃ ²⁻ | -2 |
| lithium | Li ⁺ | +1 | bisulfate (hydrogen sulfate) | HSO ₄ ⁻ | -1 | sulfide | S ²⁻ | -2 |
| nickel(II) (nickelous) | Ni ²⁺ | +2 | bromate | BrO ₃ ⁻ | -1 | thiocyanate | SCN ⁻ | -1 |
| potassium | K ⁺ | +1 | bromide | Br ⁻ | -1 | thiosulfate | S ₂ O ₃ ²⁻ | -2 |

A note about hydrogen and hydronium: Rarely does hydrogen ion exist on its own. When H⁺ is written in equations or textbooks, it usually is a simplified way of saying H₃O⁺. Water, H₂O, is constantly breaking up to form trace amounts of hydroxide (OH⁻) and hydronium (H₃O⁺) ions.

A note about mercury: Mercury (I) ion exists as a diatomic unit.