Common Polyatomic Ions

Cations

- $\bullet \ \ H_3O^+ \ \to \ \ \ \mbox{Hydronium}$
- $\bullet \ \ \, NH_4^+ \, \to \ \ \, \text{Ammonium}$
- $PH_4^+ \rightarrow Phosphonium$

Anions

Group 3

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BO3^{3-} \rightarrow Borate
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Group 4

Inorganic

- $\bullet \ CN^- \to \ \text{Cyanide}$
- $CO_3^- \rightarrow Carbonate$
- $\begin{array}{ccc} \bullet & HCO_3^- \rightarrow & Bicarbonate \\ \bullet & SiO_3^{2-} \rightarrow & Silicate/Metasilicate \\ \bullet & SnO_3^{2-} \rightarrow & Stannate \\ \end{array}$

Organic

- $\bullet \ \ C_2O_4^{2\,-} \to \ \ \text{Oxalate}$
- $C_2^2 H_3^7 O_2^- \rightarrow \text{Acetate}$
- $C_3^2 H_5^3 O_3^2 \rightarrow \text{Lactate/Propionate}$
- $C_6H_8O_7^{3} \rightarrow$ Citrate
- $C_7^{\dagger}H_5^{\dagger}O_2^{-} \rightarrow \text{Benzoate}$
- $C_7H_5O_3^- \rightarrow \text{Salicylate}$

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Group 5

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\begin{array}{lll} \bullet & NO_3^- \rightarrow & \text{Nitrate} \\ \bullet & NO_2^- \rightarrow & \text{Nitrite} \\ \bullet & PO_4^{3-} \rightarrow & \text{Phosphate} \\ \bullet & HPO_4^{2-} \rightarrow & \text{Hydrogen Phosphate} \\ \bullet & H_2PO_4^- \rightarrow & \text{Dihydrogen Phosphate} \\ \bullet & AsO_3^{3-} \rightarrow & \text{Arsenate} \\ \bullet & AsO_3^{3-} \rightarrow & \text{Arsenate} \\ \bullet & AsO_3^{3-} \rightarrow & \text{Arsenate} \\ \end{array}
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Group 6

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 \begin{array}{lll} \bullet & {\rm O_2^2}^- & \to & {\rm Peroxide} \\ \bullet & {\rm OH}^- & \to & {\rm Hydroxide} \\ \bullet & {\rm SO_4^{-2}} & \to & {\rm Sulfate/Sulphate} \\ \bullet & {\rm SO_3^{-2}} & \to & {\rm Sulfite/Sulphite} \\ \bullet & {\rm HSO_4^-} & \to & {\rm Bisulphate/Bisulfate} \\ \bullet & {\rm HSO_3^-} & \to & {\rm Bisulphite/Bisulfite} \\ \bullet & {\rm SCN}^- & \to & {\rm Thiocyanate} \\ \bullet & {\rm S_2O_3^{-2}} & \to & {\rm Thiosulfate/Thiosulphate} \\ \bullet & {\rm S_2O_3^{-2}} & \to & {\rm Peroxydisulfate/Peroxydisulphate} \\ \bullet & {\rm SeO_4^{-2}} & \to & {\rm Selenate} \\ \end{array}
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Group 7

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• FO_3^- \rightarrow Fluorate

• ClO_4^- \rightarrow Perchlorate

• ClO_3^- \rightarrow Chlorate

• ClO_2^- \rightarrow Chlorite

• ClO^- \rightarrow Hypochlorite

• BrO_3^- \rightarrow Bromate

• BrO_2^- \rightarrow Bromite

• IO_3^- \rightarrow Iodate

• IO_2^- \rightarrow Iodite

• AtO_3^- \rightarrow Astatate
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Transitional Metal Anions

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• CrO_4^{2-} \rightarrow Chromate

• Cr_2O_7^{2-} \rightarrow Dichromate

• MnO_4^{-} \rightarrow Permaganate
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- $\mathrm{MnO_4^2}^- \to \mathrm{Maganate}$ $\mathrm{WO_4^2}^- \to \mathrm{Tungstate}$ $\mathrm{MoO_4^2}^- \to \mathrm{Molybdate}$ $\mathrm{Fe(CN)_6^4}^- \to \mathrm{Ferrocyanide}$ $\mathrm{VO_3^-} \to \mathrm{Vanadate}$

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