Chemical Formulae

H_2O

Sb_2O_3

Chemical Equations

$$\mathrm{CO_2 + C \longrightarrow 2\,CO}$$

$$\mathrm{Hg^{2+} \xrightarrow{I^-} HgI_2 \xrightarrow{I^-} [Hg^{II}I_4]^{2-}}$$

Charges

H^+

CrO_4^{2-} $CrO_4{}^{2-}$

$[AgCl_2]^-$

Y^{99+} Y^{99+}

Oxidation States

$\overset{\text{II}}{\text{Fe}}\overset{\text{III}}{\text{Fe}_2}\text{O}_4$ $\overset{\text{II}}{\text{Fe}}\overset{\text{III}}{\text{Fe}_2}\text{O}_4$

Stoichiometric Numbers

$2\mathrm{H_2O}$

$2\,\mathrm{H_2O}$

$2\ \mathrm{H_2O}$

$\frac{1}{2}\,\mathrm{H_2O}$

$1/2\,\mathrm{H_2O}$

Nuclides, Isotopes

$^{227}_{90}\mathrm{Th}^{+}$

$^{227}_{90}\mathrm{Th}^{+}$

$^{0}_{-1}n^{-}$

$^{0}_{-1}n^{-}$

Parenthesis, Braces, Brackets

$$(NH_4)_2S$$

$$\left[\left\{(X_2)_3\right\}_2\right]^{3+}$$

$$[\{(X_2)_3\}_2]^{3+}$$

$$CH_4 + 2\left(O_2 + \frac{7}{2}N_2\right)$$

States of Aggregation

$\mathrm{CO_3^{2-}}_{(aq)}$

$\mathrm{NaOH}(aq, \infty)$

Radical Dots

$OCO^{\bullet -}$

$NO^{(2\bullet)-}$

Escaped Modes

NO_x is the same as NO_x

Fe^{n+} is the same as Fe^{n+}

$\mathrm{Fe(CN)}_{\frac{6}{2}}$

$\mathbf{CO}_2^3$

μ-Cl

Reaction Arrows

$$\mathrm{A} \longrightarrow \mathrm{B}$$

$$\mathrm{A} \longleftarrow \mathrm{B}$$

$$\mathrm{A} \longleftrightarrow \mathrm{B}$$

$$\mathrm{A} \rightleftharpoons \mathrm{B}$$

Above/Below Arrow Text

$$\mathrm{A} \xrightarrow{\text{Delta}} \mathrm{B}$$

$$\mathrm{A} \underset{\text{Below}}{\overset{\text{Above}}{\rightleftharpoons}} \mathrm{B}$$

$$\mathrm{CH_3COOH} \underset{+\mathrm{H^+}}{\overset{+\mathrm{OH^-}}{\rightleftharpoons}} \mathrm{CH_3COO^-}$$

Precipitation and Gas

$$SO_4^{2-} + Ba^{2+} \longrightarrow BaSO_4 \downarrow$$

$$A \downarrow B \downarrow \longrightarrow B \uparrow B \uparrow$$

Alignments

$$\mathrm{A} \longrightarrow \mathrm{B}$$

$$\mathrm{B} \longrightarrow \mathrm{C} + \mathrm{D}$$

More Examples

$$\mathrm{Zn^{2+}} \underset{+2\,\mathrm{H^+}}{\overset{+2\,\mathrm{OH^-}}{\rightleftharpoons}} \underset{\text{amphoteres Hydroxid}}{\mathrm{Zn(OH)_2}\downarrow} \underset{+2\mathrm{H^+}}{\overset{+2\,\mathrm{OH^-}}{\rightleftharpoons}} \underset{\text{Hydroxozikat}}{\mathrm{[Zn(OH)_4]^{2-}}}$$

More Examples

$$\overset{\text{II}}{\text{CuCl}_2} + \text{K}_2\text{CO}_3 \longrightarrow \overset{\text{II}}{\text{CuCO}_3} \downarrow + 2\,\text{KCl}$$

$$\text{Hg}^{2+} \xrightarrow{\text{I}^-} \text{HgI}_2 \xrightarrow{\text{I}^-} [\text{Hg}^{\text{II}}\text{I}_4]^{2-}$$