

## Writing Chemical Formulas

You can use the advanced view in the equation editor to write chemical formulas. For formula writing, use `_` (underscore) for subscripts and `^` (carat) for superscripts. If there is more than one character in the subscript or superscript, wrap the characters with braces `{ }`. If you'd like your chemical formulas without the italics, use advanced view and `\text{ }` to enclose the elements.

Formula	How to type in Advanced View
$C_6H_6$	<code>C_6H_6</code>
$C_6H_6$	<code>\text{C}_6\text{H}_6</code>
$SO_4^{2-}$	<code>SO_4^{2-}</code>
$SO_4^{2-}$	<code>\text{SO}_4^{2-}</code>
$Al_3(SO_4)_2$	<code>Al_3(SO_4)_2</code>
$Al_3(SO_4)_2$	<code>\text{Al}_3(\text{SO}_4)_2</code>









## Writing Scientific Notation

There are two ways to write the times symbol: `\times` and `\cdot`. Use `^` for exponents. If the exponent contains more than one character, place the exponent text in braces `{ }`. Use `\text{ }` wrapped around units to remove the italicization. Use `\space` to place space between numbers and units.

Scientific Notation	How to type in Advanced View
$5.10 \times 10^{-3} \text{ mol}$	<code>5.10\times10^{-3}\space\text{mol}</code>
$6.02 \cdot 10^{23} \text{ atoms}$	<code>6.02\cdot10^{23}\space\text{atoms}</code>

## Writing Chemical Equations

To write chemical equations, you'll need to use a variety of reaction arrows. Here's a short list of arrows that can be used in the advanced view of the equation editor.

Arrow	LaTeX Code
	<code>\longrightarrow</code>
	<code>\longleftarrow</code>
<i>text</i> 	<code>\xrightarrow{text}</code>
<i>text</i> 	<code>\xleftarrow{text}</code>
	<code>\leftrightharpoons</code>
	<code>\rightleftharpoons</code>
	<code>\rightleftarrows</code>
	<code>\leftrightarrows</code>

Using the advanced view, we can write equations like the following examples. You may wish to use `\space` to provide space between quantities and chemical formulas. If you want to remove the italicized elements, it is usually easier to write the formula first, and then go through and insert `\text{ }` around all the elements in the formula.

Scientific Notation	How to type in Advanced View
$CH_4 + 2O_2 \longrightarrow CO_2 + 2H_2O$	<code>CH_4+2O_2\longrightarrow CO_2+2H_2O</code>
$CH_4 + 2O_2 \longrightarrow CO_2 + 2H_2O$	<code>\text{CH}_4+2\text{O}_2\longrightarrow \text{CO}_2+2\text{H}_2\text{O}</code>

$2H_2O_2 (aq) \xrightarrow{Pt} 2H_2O (l) + O_2 (g)$	$2 H_2O_2 \text{space}(aq) \xrightarrow{\text{Pt}}$ $2 H_2O \text{space}(l) + O_2 \text{space}(g)$
$2 H_2O_2 (aq) \xrightarrow{Pt} 2 H_2O (l) + O_2 (g)$	$2 \text{space} \text{H}_2 \text{O}_2 \text{space}(aq)$ $\xrightarrow{\text{Pt}}$ $2 \text{space} \text{H}_2 \text{O} \text{space}(l) +$ $\text{O}_2 \text{space}(g)$