**Bases**

In [chemistry](https://en.wikipedia.org/wiki/Chemistry), **bases** are substances that, in [aqueous solution](https://en.wikipedia.org/wiki/Aqueous_solution), are slippery to the touch, taste [bitter](https://en.wikipedia.org/wiki/Bitterness), change the color of indicators (e.g., turn red [litmus paper](https://en.wikipedia.org/wiki/Litmus_paper) blue), react with [acids](https://en.wikipedia.org/wiki/Acid) to form [salts](https://en.wikipedia.org/wiki/Salts), and promote certain chemical reactions ([base catalysis](https://en.wikipedia.org/wiki/Base_catalysis)),accepts protons from any proton donor , contain completely or partially displceable OH ion. Examples of bases are the hydroxides of the[alkali](https://en.wikipedia.org/wiki/Alkali_metal) and [alkaline earth metals](https://en.wikipedia.org/wiki/Alkaline_earth_metal) ([NaOH](https://en.wikipedia.org/wiki/Sodium_hydroxide" \o "Sodium hydroxide), [Ca(OH)](https://en.wikipedia.org/wiki/Calcium_hydroxide" \o "Calcium hydroxide)[2](https://en.wikipedia.org/wiki/Calcium_hydroxide" \o "Calcium hydroxide), etc.).

These particular substances produce [hydroxide](https://en.wikipedia.org/wiki/Hydroxide) ions (OH−) in aqueous solutions, and are thus classified as [Arrhenius bases](https://en.wikipedia.org/wiki/Arrhenius_base). For a substance to be classified as an Arrhenius base, it must produce hydroxide ions in an aqueous solution.