Brønsted-Lowry theory is a theory on acids and bases. In many reactions a H+, which is simply a proton, is transferred from one species to another. According to Brønsted-Lowry theory, the species that donates the H+ is an acid; the one that accepts the H+ is a base.

eg. 1:

In this reaction,
HCl donates a H+ to water and, therefore, acts as an acid.
Water accepts a H+ from HCl and, therefore, acts as a base.

In the reverse reaction, Cl− acts as a base and H3O+ acts as an acid.

When HCl acts as an acid, it becomes Cl−, which is a base and is called the conjugate base of HCl. When water acts as a base, it becomes H3O+, which is an acid and is called the conjugate acid of water.

eg. 2:

see also acid strength, acid dissociation constant, Lewis theory

Contributors

- Gamini Gunawardena from the OChemPal site (Utah Valley University)