According to Brønsted-Lowry theory, only a species containing at least one hydrogen atom has the potential to act as an acid in a reaction. Lewis theory is an attempt to extend the concept of acidity beyond species containing hydrogen. According to Lewis theory, in a reaction, a species that accepts a pair of electrons to form a new covalent bond is an acid, and a species that contributes a pair of electrons toward a new covalent bond is a base.

eg. 1:

![Diagram of BF<sub>3</sub> and F<sup>-</sup> reacting](image1)

In this reaction, BF<sub>3</sub> accepts a pair of electrons from F<sup>-</sup> to form a new covalent bond and, therefore, acts as an acid; F<sup>-</sup> contributes a pair of electrons toward a new covalent bond with BF<sub>3</sub> and, therefore, acts as a base.

In a reaction a species that acts as an acid according to Lewis theory is called a Lewis acid and a species that acts as a base a Lewis base.

![Diagram of BF<sub>3</sub> and F<sup>-</sup> reacting](image2)

eg. 2:

Contributors

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