

Diverse Applications of Click Chemistry-A Review

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Abstract: *In simple Language the term "Click" means joining molecular entities as easily as clicking together the two pieces of a seat belt buckle. Click Chemistry" was first described by K. B. Sharpless in 2001, he describes reactions that gives products with high yields. In general, the definition of click chemistry is explained as follows:*

- Give very high chemical yields of desired products.
- Combination of readily available simple building blocks.
- Generate almost no byproducts.
- Simple product isolation by non-chromatographic methods.
- Reaction proceeds in water, as well as in organic solvents.

Several Organic Chemical reactions such as nucleophilic ring-opening reactions, cyclo-additions, nucleophilic addition reactions, Diels Alder reactions, etc. are included in click reactions. Click Chemistry refers to a group of reactions that are fast, simple to use, easy to purify, versatile, regiospecific, and give high product yields. It also possesses several applications in drug discovery, supramolecular chemistry, material science, nanotechnology, etc.

Keywords: Click Chemistry, Principle of click Chemistry, Applications of Click Chemistry, Chemical reactions Using Click Chemistry