

Click Chemistry and Nobel Prize 2022

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Nobel Prize 2022 in Chemistry was jointly awarded to three scientists, Barry Sharpless, Morten Meldahl, and Carolyn Bertozzi. This award was given due to the efforts of these three scientists in the field of "click chemistry". Simply known as the simplification of difficult reactions, click chemistry was introduced to the world of science in 2001 by Sharpless. Click chemistry means small molecules can be put together in a simple way, and the word click is indicative of this issue. Sharpless and Meldal independently designed the alkyne-cycloalkyne coupling reaction with azide. This reaction takes place in the presence of a high-efficiency copper catalyst and selectively produces one hundred percent of a product. Bertozzi connected click reactions to the world of biological sciences and used these reactions for bio-orthogonal reactions. Click reactions can be used in biological reactions involving living cells without damaging them. According to the achievements of click chemistry, we can imagine a clear perspective in cancer recognition and treatment. In this article, an attempt has been made to provide a simple and efficient explanation about click chemistry and the winners of the Nobel Prize 2022 in Chemistry.

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