Fischer indole synthesis applied to the total synthesis of natural products

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Abstract

One of the oldest and most useful reactions in organic chemistry is the Fischer indole synthesis (FIS). It is known to have a wide variety of applications including the synthesis of indole rings, often present as the framework in the total synthesis of natural products, particularly those found in the realm of alkaloids, which comprise a ring system known as an indole alkaloid. In this review, we are trying to emphasize the applications of FIS as an old reaction, which is currently applied to the total synthesis of biologically active natural products and some other complex targets.

Keywords

Alkaloids, Chemical compounds, Metabolites, Synthesis (chemical), A-RINGS, Complex targets, Fischer Indole synthesis, Indole alkaloids, Indole rings, Natural products, Organic Chemistry, Total synthesis, Polycyclic aromatic hydrocarbons