

SYNTHESIS OF SOME NEW CHALCONES DERIVATIVE

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Abstract: Synthesis of chalcones with Claisen-Schmidt condensation reaction. The reaction between an aldehyde and ketone having an alpha-hydrogen with an aromatic carbonyl compound lacking alpha hydrogen is called the Claisen-Schmidt condensation reaction. It is also called as crossed aldol condensation. The product of this condensation reaction is α, β unsaturated carbonyl compound i.e. Chalcone. After the formation of this chalcone, it reacts with different reagents to form new chalcone derivatives. Different derivatives show different pharmacological and biological activities. In present work newly synthesized chalcone react with thiourea in the presence of ethanolic sodium hydroxide to form thiazine derivative.

Index Terms: derivative, thiazine, alpha hydrogen.

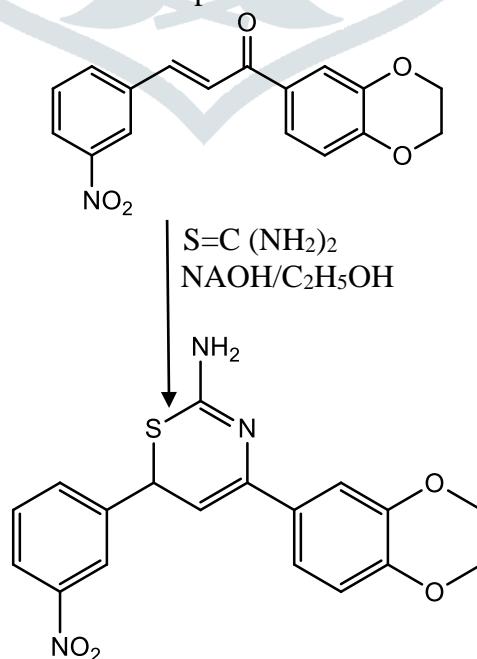
Introduction:

Important precursors of Flavonoids and isoflavonoids are chalcones. α, β -unsaturated ketone moiety is an important constituent of chalcones and is found in a large number of biological active compounds. Pharmacological activities are expected from derivative of chalcones, which may have natural or synthetic source.

Varieties of chalcones are synthesized by condensation of aromatic aldehyde and aromatic ketone. Every new chalcone shows its own properties like pharmacological and biological and its derivative also shown its own properties due to structure and substituent attached to the ring. Hence it is interesting to synthesize and to study the various chalcones and its derivatives. It act as antifungal, anti-inflammatory, antibacterial, anticancer drugs. In this work newly synthesized chalcone react with thiourea in the presence of sodium hydroxide to obtained thiazine derivative.

Preparation of chalcones derivative (thiazine derivative):

A mixture of chalcone (0.02mol) and thiourea (0.02 mol) dissolved in ethanolic Sodium hydroxide solution (10 ml) was stirred for 2-3 hours with magnetic stirrer. It was poured in to 400 ml of cold water with continuous stirring for 1 hour and kept overnight. The precipitate was formed. It was filtered, washed and re-crystallized the product from ethanol. The completion of the reaction was monitored by TLCs.



Thiazine Derivative

Result and Discussion:

The newly synthesized chalcone derivative compounds were characterized by thin layer chromatography and concerting compound was detected by melting point in open capillary tube. The synthesized chalcone was tested with Willson's test.

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