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Study on Synthesis of Novel Thioxo Tetrahydro Pyrimidine Derivatives and Their Antimicrobial Activity
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ABSTRACT
1-(3-hydroxyphenyl)ethanone react with 1-chloro-4-methylbenzene in presence of copper metal as a catalyst gives 1-(3-(p-tolyloxy)phenyl)ethanone, this derivatives react with various substituted aldehyde to give corresponding substituted chalcone derivatives. Now these derivatives on condensation with thoura gives the vast rang of Thioxo Tetrahydro Pyrimidine derivatives. Structure elucidation of synthesized compound had been made on the basis of element analysis, 1H NMR Spectra studies. The microbial activity of the synthesized compounds has been studied against the species bacillus subtilis, staphylococcus aureus, Escherichia coli, and salmonella typhi.

KEYWORDS
Synthesis, heterocyclic substituted chalcone derivatives, Pyrimidine derivatives, Chalcones

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Study on Synthesis of Some Novel Thiazepine Derivatives their Antimicrobial Activity
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ABSTRACT
1-chloro-4-(p-toloyloxy)benzene react with 1-(4-hydroxy phenyl)-ethanone in presence of copper metal as a catalyst gives 1-(4-(4-p-toloyloxy) phenoxycyphenyl) ethanone, this derivatives react with various substituted aldehyde to give corresponding substituted chalcone derivatives. Now these derivatives on condensation with 2-aminobenzeneethiol gives the vast range of thiazepine derivatives. Structure elucidation of synthesized compound has been made on the basis of element analysis, IH NMR Spectra studies.

The microbial activity of the synthesized compounds has been studied against the species bacillus subtilis, staphylococcus aureus, Escherichia coli, and salmonella typhi.

KEYWORDS
Synthesis, Heterocyclic substituted chalcone derivatives, Pyrimidine derivatives, Chalcones

INTRODUCTION
Chalcone¹ are the compounds were aromatic substituents are introduced into the terminal position of system C–C–C. So chalcone are characterized by their position of a Ar(A)-CO-CH = CH-Ar(B) Structure in which two aromatic ring are linked by an aliphatic three carbon chain, thus chalcones are phenyl-styril ketones containing reactive ketoethylenic group –C–CO–CH₃.

Thiazepine derivatives are a non dihydropyridine (non-DHP) one of the class of drugs so called as calcium channel blockers, therapeutically applicable in the treatment of hypertension, angina pectoris, and in the treatment of many types of arrhythmia. Thiazepine is effective in preventive medication for migraine. They are of class III antianginal drug and class IV antiarrhythmic.⁸-¹⁰

Thiazepine derivatives are rapidly metabolized and act as an inhibitor of the enzyme. All effort are done in the research is to synthesized a novel compound that can be used for formulation of anticancer drugs.

EXPERIMENTAL
Preparation of 1-(3-(p-toloyloxy) phenyl)ethanone
In 250 round bottom flask 1-(3-hydroxy phenyl)ethanone (13.5 g,0.1 mole) was dissolved
Study on synthesis of 6-phenyl-4-(4-(p-tolyl) phenoxy) phenyl)-5, 6-dihydropyrimidin-2(1H)-one and their antimicrobial activity

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ABSTRACT

1-chloro-4-(p-tolyl) benzene react with 1-(4-hydroxy phenyl)-ethane in presence of copper metal as a catalyst gives 1-(4-(p-tolyl) phenoxy) phenyl)-ethane. The derivatives react with various substituted aldehydes to give corresponding substituted chalcone derivatives (N-1). Now these derivatives (O-1), on condensation with uracil gives 6-phenyl-4-(4-(p-tolyl) phenoxy) phenyl)-5, 6-dihydropyrimidin-2(1H)-one (O-2). Structure elucidation of synthesized compound has been made on the basis of element analysis, IR, NMR, MS spectra. The microbial activity of the synthesized compounds has been studied against the species bacillus subtilis, staphylococcus aureus, Escherichia coli, and aspergillus niger.

Keywords: Synthesis, heterocyclic substituted chalcone derivatives, Pyrimidine derivatives. Chalcones

INTRODUCTION

Chalcones (I) are the compounds where aromatic substituents are introduced into the terminal position of system C= C-C= C. So chalcone are characterized by their position of an Ar(A)-CO-CH = CH-Ar(B). Structure in which two aromatic ring are linked by an aliphatic three carbon chain, thus chalcones are phenyl-phenyl ketones containing reactive ketoenolic group \(-\text{C}=\text{C}=\text{O}\). Chalcones are also known as benzylacetophenones or benzylidene acetophenones. Chalcones are colorless compounds because of presence of chromophore monoaromatics. Chalcones are the precursors in the biosynthesis of anthocyanins and flavonoids.

Chalcones and substituted chalcones can be synthesized in laboratory by calixene-ketone condensation of acetophenones or substituted acetophenones with aldehyde.

The first condensation was reported by kesten-schmidt (2, 3) and he gave the name “Chalcones” some substituted chalcones and their derivatives have been reported to possess some interesting biological properties such as antibacterial, antifungal, insecticidal, antihistamine, analgesic, ulcerogenic etc.

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