Ain Shams University
**Faculty of Education**
**Chemistry Department**

# A THESIS
# Entitled

# Synthesis and Biological Activity of Some New Thienopyrimidine Derivatives

*Submitted by*

**Osama Farouk Mohamed Ibrahim**
M.Sc. (Organic Chemistry) 2011

*For the degree of*

**Ph.D. for Teacher's Preparation in Science (Organic Chemistry)**

Department of Chemistry
Faculty of Education
Ain Shams University
Cairo

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Faculty of Education
Department of Chemistry

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# Synthesis and Biological Activity of Some New Thienopyrimidine Derivatives

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**Osama Farouk Mohamed Ibrahim**
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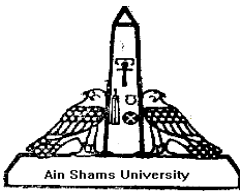


**Faculty of Education**
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Degree: **Ph.D. for Teacher's Preparation in Science (Organic Chemistry)**

Thesis Title: **Synthesis and Biological Activity of Some New Thienopyrimidine Derivatives**

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## Abstract

# Synthesis and Biological Activity of Some New Thienopyrimidine Derivatives

**Osama Farouk Mohamed Ibrahim**

Ph.D. for Teacher's Preparation in Science

*(Organic Chemistry)*

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The present work describes the synthesis of some new condensed and isolated heterocycles containing thienopyrimidine moiety as potential antimicrobial agents using 3-amino-2-methyl-5,6,7,8-tetrahydro[1]benzothieno[2,3-*d*]pyrimidin-4(3*H*)-one (**1a**) and 3-amino-2-thioxo-2,3,5,6,7,8-hexahydro[1]benzothieno [2,3-*d*]pyrimidin-4(1*H*)-one (**1b**) as starting materials for their preparation.

Structure elucidation of the newly synthesized thienopyrimidines has been deduced from elemental analyses and spectral data (IR, $^{1}$H NMR, $^{13}$C NMR and mass spectrometry).

Key Words:

Thienopyrimidines, antimicrobial applications

**Supervisors:**

**1- Prof. Dr. Magdy Hamed El-Metwally Seada**
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# *SUMMARY*