

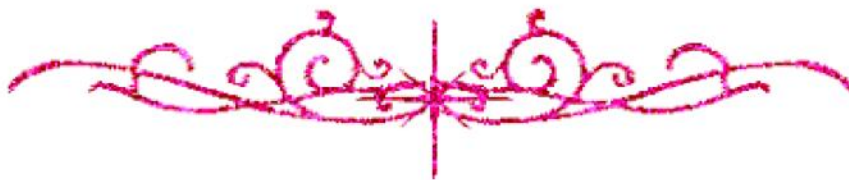
# بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ



**HOSSAM MAGHRABY**



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



**HOSSAM MAGHRABY**



# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم  
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
علي هذه الأقراص المدمجة قد أعدت دون أية تغييرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

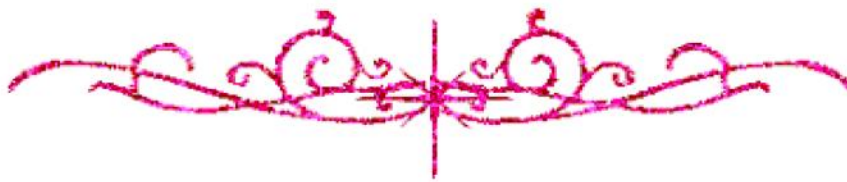


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بعض الوثائق

الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



HOSSAM MAGHRABY

B16452

**SYNTHESIS OF CERTAIN  
TETRAHYDRONAPHTHYL THIAZOLES  
OF POSSIBLE BIOLOGICAL ACTIVITY**

**THESIS**

**PRESENTED BY**

**MANAL MOHAMED ANWAR HASAN**

**(B. Pharm. Sci. 1986)**

**Submitted in Partial Fulfilment**

**For Master Degree in**

**PHARMACEUTICAL SCIENCES**

**(PHARMACEUTICAL CHEMISTRY)**

**UNDER THE SUPERVISION OF**

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**Associate Prof. of Medicinal Chemistry,**

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**1995**

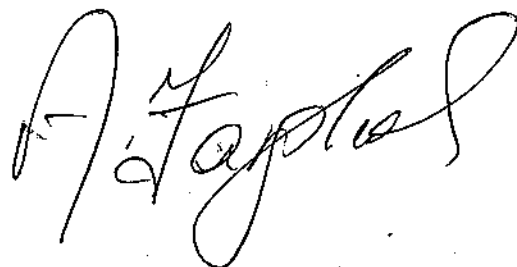
بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

## APPROVAL SHEET

This thesis has been approved by the examination committee on / /1995

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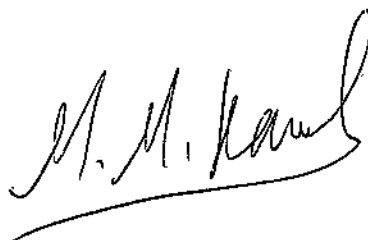
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# ABSTRACT

## Synthesis of certain tetrahydronaphthyl thiazoles of possible biological activity

### Abstract

In the present work, a variety of tetrahydronaphthyl thiazole derivatives was prepared for the purpose of evaluation as antiparasitic or as antimicrobial agents. These compounds include 1-alkyl(or aryl)-3-[4-[6-(1,2,3,4-tetrahydronaphthyl) thiazol-2-yl] ureas and thioureas. In addition, several reactions were carried out on the heterocyclic compounds to obtain a series of possible biologically active N-3-[6-(1,2,3,4-tetrahydronaphthyl)]-2-arylthiazolidin-4-ones and their Mannich bases. Synthesis were achieved through different routes of chemical reactions and transformations starting with 6-amino tetralin and 2-amino-4-[6-(1,2,3,4-tetrahydronaphthyl)]thiazole. All of the new compounds were confirmed with concordant microanalytical data, IR, <sup>1</sup>HNMR and Mass spectra.

Some of the newly synthesized compounds were found to exhibit various inhibitory effects on egg masses production of Biomphalaria alexandrina snails, the intermediate host of Schistosoma mansoni. Also some other compounds showed antimetabolic effect in experimental animals livers, and antimicrobial effects.

Moreover, one of the newly synthesized compounds (Compound IVc) showed moderate activity against human immuno deficiency virus type-1 (HIV-1) (Anti-Aids) and anticancer against malignant tumors (anticancer)\*

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\*(Department of Health and Human Services, National Institute of Health, National Cancer Institute, Bethesda, Maryland, U.S.A.) (cf. the enclosed letter of the said institute). Biological part page 78.



The thesis comprises the following parts:

**A- Introduction:**

This part includes a survey of the different chemical, biological and pharmacological activities of tetrahydronaphthalene (tetralin) derivatives and those incorporated into heterocyclic moieties.

**B- Aim of the present investigation:**

This part includes the chemical and pharmacological basis on which the synthesized groups of the new compounds were chosen.

**C- Theoretical discussion :**

This part deals with the main commonly applied methods for the preparation of the intermediates and the different pathways leading to the final compounds.

furthermore, it contains the investigation of some reactions and the results.

**D- Experimental part:**

This part includes the methods of the synthesis of the starting materials, the intermediates and the new products.