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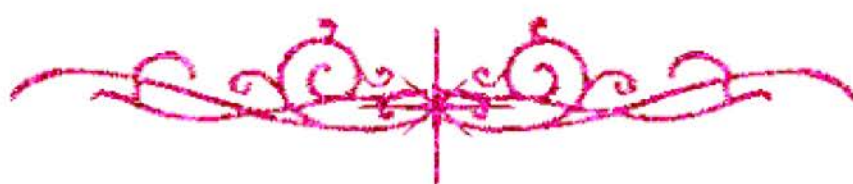
بسم الله الرحمن الرحيم



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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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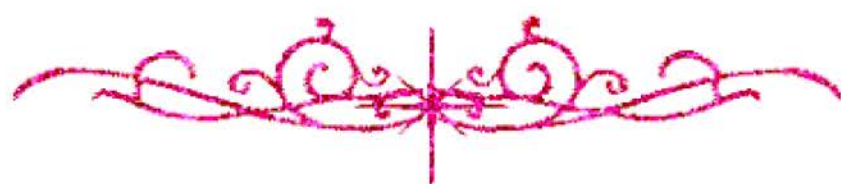
بعض الوثائق الأصلية تالفة



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بالرسالة صفحات
لم ترد بالأصل



**PHYSICOCHEMICAL STUDIES ON COMPLEXES
OF SOME METALS WITH
ISONITROSODIBENZOYL- AND THIODIBENZOYLMETHANE**

A Thesis Presented

B 158V.

By

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B.Sc. (Hons.)

*In partial fulfillment of the Requirements of
Master's Degree of Science in Chemistry*

To

The Department of chemistry

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1994

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Title : physicochemical studies on complexes of some metals with Isonitrosodibenzoyl- and Thiodibenzoylmethane.

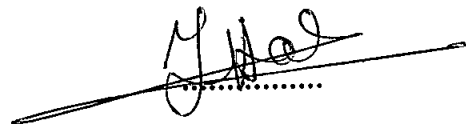
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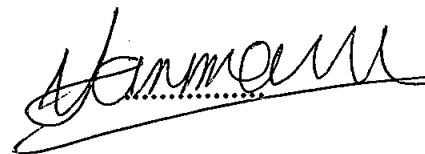
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.....

To
My Mother
and
The Memory of My Father

DECLARATION

I hereby declare that the work described in this thesis was carried out by me in the **Department of Chemistry of Suez Canal University**, that it is my own composition and that it has not been submitted previously in application for a higher degree.

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ARABIC SUMMARY

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I. INTRODUCTION

I.1 LITERATURE REVIEW

I-1 LITERATURE REVIEW

I.1.1. Historical

There are several categories of isonitrosocompounds among which are isonitroso- β -diketones, where the parent β -diketones are important compounds in the development of inorganic chemistry. Mehrotra,^[1] drew attention to the predominant chelating character of these compounds. Numerous complexes of β -diketones were prepared which have aromatic character in the diketone ring, this aspect was later pursued by Mehrotra,^[2] β -diketones have the capacity to form inner coordination compounds with a variety of metals. Current interest in metal β -diketonates also arises from their application as contact shift reagent for better resolution of the nuclear magnetic resonance (nmr) spectra of a variety of complex organic molecules. Laser technology and polymer industry are also among the important application fields of β -diketone complexes. β -diketones display keto-enol tautomerism Fig.1.1, the hydrogen atom of the CHR_3 group is activated by the adjacent carbonyl groups, and a conjugate system can arise by a prototropic shift. These tautomers exist in equilibrium with each other. Under appropriate conditions the enolic hydrogen atom of the ligand can be replaced by a metal cation to produce six-membered ring Fig.1.2, thereby the keto-enol equilibrium is shifted.

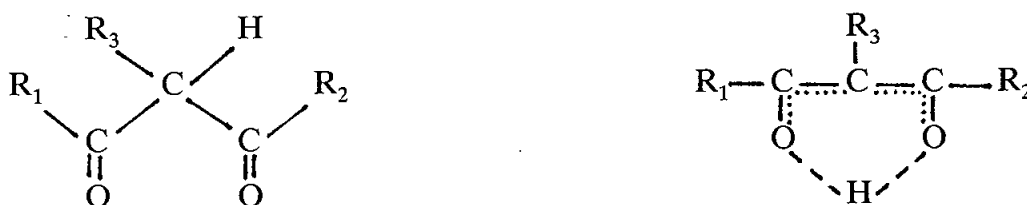


Fig.1.1

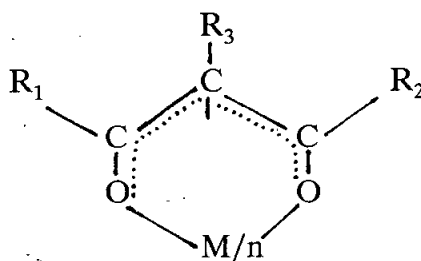


Fig.1.2