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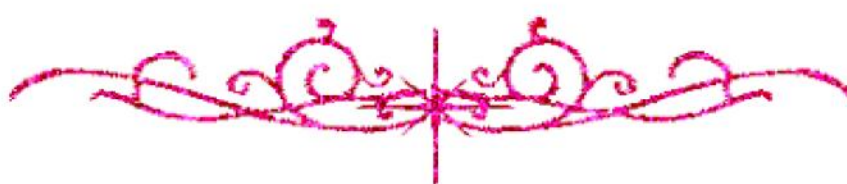
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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

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



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



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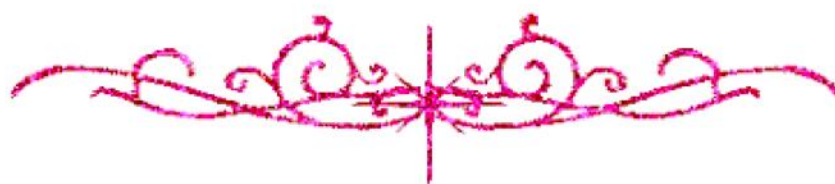
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**بالرسالة صفحات
لم ترد بالأصل**



Spectroscopic and Electrical Studies of Some Lanthanide Complexes

B17776

Thesis
Submitted for the Degree of
Ph.D. in Physics

By
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National Research Center

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(2002)

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

لَقَدْ جَاءَكُمْ رَسُولٌ مِّنْ أَنفُسِكُمْ فَخُذُوا حِذْرًا فَاسْمِعُوا بِلَاغَ الْوَحْيِ وَإِنِّي أَنَا الْغَفُورُ الرَّحِيمُ

صَدَقَ اللَّهُ الْعَظِيمُ

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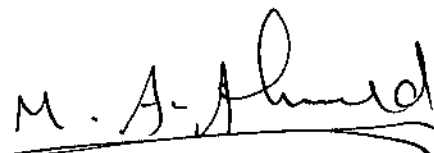
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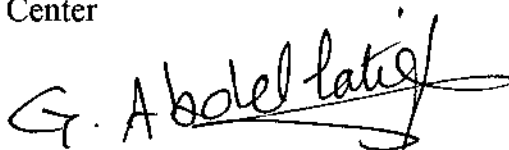
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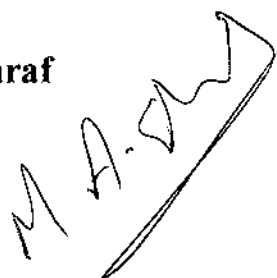
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Degree (Ph.D.): Thesis, Faculty of Science, Cairo Univ. 2001

Abstract: Infrared, ultraviolet, and visible are applied to investigation the molecular and electronic structure of dithizone and some lanthanide (lanthanum, cerium, neodymium, samarium, gadolinium, dysprosium, and erbium) dithizone complexes. X-ray is used to study the form complexes. Thermogravimetric analysis is used to study the decomposition of some complexes. The phase transition and melting point are shown by differential thermal analysis. The type of conduction mechanism is studied by seebeck coefficient. The DC and AC conductivity are measured and discussed. The real part of dielectric constant (ϵ') and imaginary part (ϵ'') are measured. Generally all used lanthanides form complexes except dysprosium.

Key Words: Infrared, ultraviolet, visible, molecular and electronic spectroscopy, X-Ray diffraction, differential thermal analysis, thermogravimetric analysis, seebeck coefficient, DC conductivity, AC conductivity, Real and Imaginary parts of dielectric constant.

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*To my Mother,
Family
and Soul my Father*

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