



**AIN SHAMS UNIVERSITY**  
**University College for Women**  
**(Arts, Science, and Education)**

***PHYSICAL AND KINETIC STUDIES OF BIMETAL  
CATALYSTS IN THE HETEROGENEOUS  
REACTIONS***

*A Thesis*  
*Submitted for the M.Sc. degree in science*  
*(Physical Chemistry)*  
*by*

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## بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

قال الله تعالى :

{ اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ (١) خَلَقَ الْإِنْسَانَ  
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سورة العلق (٩٦)



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***APPROVAL SHEET***

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**B.Sc. Graduation Date:** 2004



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# Acknowledgment



*I do thank ALLAH for all gifts he gave me.*

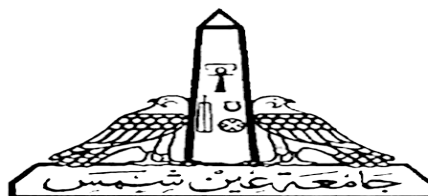
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Nouran Gaber Mahmoud



جامعة عين شمس  
كلية البنات للأداب والعلوم والتربية  
قسم الكيمياء

## دراسات طبيعية وكميائية على حفاز ثنائي الفلز في التفاعلات غير المتجانسة

رسالة مقدمة إلى  
قسم الكيمياء  
كلية البنات - جامعة عين شمس

من  
نوران جابر محمود مصطفى موسى

بكالوريوس العلوم ( ٢٠٠٤ )  
للحصول على

درجة الماجستير في العلوم في الكيمياء

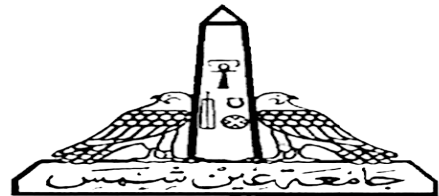
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(٢٠٠٩)



جامعة عين شمس

كلية البنات للأداب والعلوم والتربية  
قسم الكيمياء

رسالة ماجستير

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## شكـر و تقديـر

تتقدم الطالبة بخالص الشكر والتقدير للجنة الاشراف على الرسالة المكونة من

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# Dedication

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