



# **Structural Studies on the Fluorescence Chemosensor of Some Azomethine Ligands with Different Metal Ions**

**A Thesis**

**Submitted for the degree of Master of Science to Chemistry**

**Department-Faculty of Science-Ain Shams University**

**By**

**Sally Gamal Sedeek Saleh**

**B.sc. in Major Chemistry, Faculty of Science**

**Ain Shams University**

**(2008)**

**Supervised by**

**Prof. Dr. Badr Awad EL-Sayed**

Prof. of Inorganic &Analytical Chemistry

Chemistry Department, faculty of science

AL-Azhar University

**Prof. Dr. Mohamed. M. Abo Aly**

Prof. of Inorganic chemistry

Chemistry Department, faculty of science

Ain Shams University

**Dr. Dina Yehia Sabry**

Assis. Prof. of Analytical chemistry

Chemistry Department, Faculty of Science, Ain Shams University

**Egypt (2015)**



## **APPROVAL SHEET**

**Name of Candidate:** Sally Gamal Sedeek Saleh

**Degree:** M. Sc. In (Inorganic Chemistry)

**Thesis Title:** Structural Studies on the Fluorescence Chemosensor  
of Some Azomethine Ligands with Different Metal Ions

**This Thesis has been approved by:**

1- Prof. Dr. Mohamed. M. Abo Aly.....

2- Prof. Dr. Badr Awad EL-Sayed .....

3- Dr. Dina Yehia Sabry.....

**Approval**

**Chairman of Chemistry Department**

***Prof. Dr. Hamed Ahmed Younis***



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## **Aim of the Work**

The aim of the present work is synthesis and characterization of fluorescence Nano-optical sensors of some azomethine ligands with different metal ions in sol- gel. For accomplishing this work a novel, simple, sensitive and precise spectrofluorimetric method was suggested for measuring the activity of  $\alpha$ -amylase enzyme in human saliva using palladium (II) complex with o-hydroxyacetophenon azine ligand as optical sensor. Also, we have used o-hydroxyacetophenone hydrazone in sol gel matrix as a nano-optical sensor for detection of zinc ions (II) in Human hairs of some volunteers (Females and Males) and this has been accomplished by a novel, simple, sensitive and precise spectrofluorimetric method.





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