# 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**

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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 α-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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