

Binary and Ternary Metal Complexes of Some Dyes with Amino Acids

A Thesis Submitted By

Shimaa Hosny Aly Sayed Aly

B.Sc. Special Chemistry-2009

Faculty of Science, Al-Azhar University (Girls), Cairo

Submitted To

Faculty of Science, Al-Azhar University (Girls), Cairo

FOR

The Partial Fulfillment of the Requirements of

The Degree of

M.Sc. in Inorganic and Analytical Chemistry



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Binary and Ternary metal Complexes of Some Dyes with Amino Acids.

Plane of Research

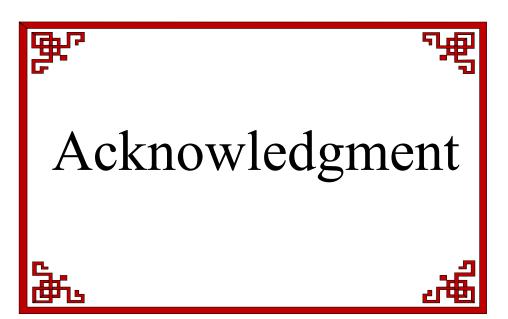
- Spectrophotometric studies of binary Complexes
- Spectrophotometric studies of ternary Complexes
- Calculated stability constant of complexes
- Characterization of the isolated solid complexes
- Study the biological activity of the prepared complexes against bacteria and fungi
- Voltametric studies of some complexes

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TO
MY PARENTS
AND
MY FAMAILY



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LIST OF ABBREVIATIONS

A Absorbance.

AdSV Adsorptive Stripping Voltammetry.

ARS Alizarin Red S.

CR Congo Red.

C.V. Continuous Variation.

Cys. Cysteine.

DMF Dimethyl Formamide.

DTA Differential Thermal Analysis.

Dr TGA Differential Thermal Gravimetric Analysis.

ICAP Inductively Coupled Plasma Spectrometre.

IR Infrared.

M.R. Molar Ratio.

nm nano meter.

PBS Phosphate Buffer Solution.

RSD Relative Standard Deviation.

SCE saturated calomel electrode.

SW Square Wave.

SWCASY Square Wave Cathodic Adsorptive Stripping

Voltammetric.

TA Thermal Analysis.

TGA Thermal Gravimetric Analysis.

UV-Vis Ultra Violet-Visible.