شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

﴿ قـسـم ﴾

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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15 – 25c and relative humidity 20-40 %

بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

Physico-chemical studies on binary and ternary complexes of some transition metal ions. Investigation of their potential role in the catalysis of hydrolysis of amino acid esters

A thesis Submitted

To

The Department of Chemistry
Faculty of Science
Cairo University

For the Ph.D Degree
(Chemistry)

2002

By

Ahmed Abdou Ali El-Sherif

M.Sc. (1997)

APPROVAL SHEET FOR SUBMISSION

Title of the Ph.D. thesis : Physico-chemical studies on binary and ternary complexes of some transition metal ions. Investigation of their potential role in the catalysis of hydrolysis of amino acid esters.

Name of the Candidate: Ahmed Abdou Ali El-Sherif

This thesis has been approved for submission by the supervisors:-

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Abstract

Name: Ahmed Abdou Ali El-Sherif

Title of thesis:

Physico-chemical studies on binary and ternary complexes of some transition metal ions. Investigation of their potential role in the catalysis of hydrolysis of amino acid esters

Degree: Ph. D. in Chemistry, Departement of Chemistry, Faculty of Science, Cairo University, 2002.

This work has been carried out to investigate the synthesis and characterization of Pd(II) complexes with Picolylamine and the equilibria involved in the interaction of $[Pd(pic)]^{2+}$ with 1,1-cyclobutane dicarboxylic acid and some biologically important ligands.The effect of chloride ion concentration and the effect of solvent on the stability of Pd(Pic)-CBDCA complex are also reported. The palladium(II)-picolylamine complex promoted the hydrolysis of amino acid esters and the kinetic evidence of intermolecular mechanisms have been investigated. Also Ternary complexes of copper(II) involving picolylamine (Pic) and amino acids, peptides or DNA constitutents have been studied. The stability constants and concentration distribution as a function of pH of the complexes formed have been potentiometrically investigated. The kinetics of hydrolysis of amino acid esters coordinated to $Cu(pic)^{2+}$ complex have also been studied.

Keywords: Complex-formation equilibria, picolylamine, Pd(II), Cu(II), amino acids, peptides, DNA, Cyclobutane dicarboxylic acid.

Supervisors

Prof. Dr. Sadek El-Sayed Abdou

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Dedicated

To

My Loving

Parents

And

To My Family

Especially

To

My Wife

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