

شبكة المعلومات الجامعية







شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأفلام قد أعدت دون أية تغيرات



يجب أن

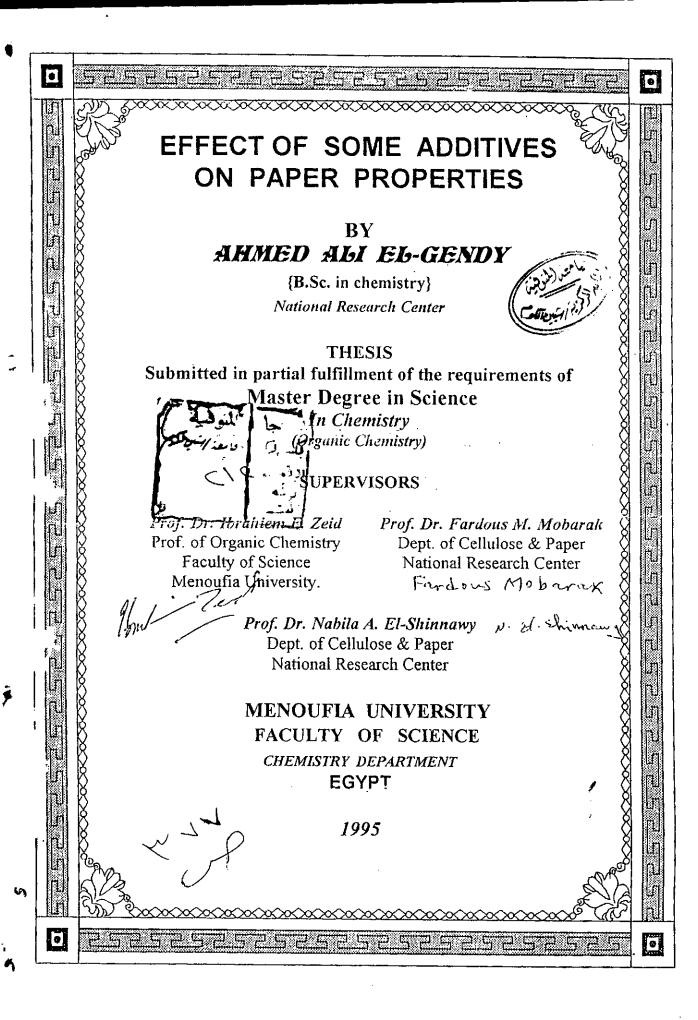
تحفظ هذه الأفلام بعيدا عن الغبار في درجة حرارة من ١٥-٥٠ مئوية ورطوبة نسبية من ٢٠-٠٠% To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%



بعض الوثائـــق الإصليــة تالفــة



بالرسالة صفحات لم ترد بالإصل



مِنْ الْجَارِيْ فِي المائية المائية في الم

﴿وقل رب ندنی علما

مرغز المندسة للكمبيوتر والطباعة وتصوير المستندات

Post Graduate Studies For M.Sc. Students In Organic Chemistry (1992 / 1993)

To Whom It May Concern

The present thesis is submitted to Menoufia University in partial fulfillment for the requirements of M.Sc. Degree in chemistry.

Besides the work carried out in this thesis, the candidate:

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- 2- Advanced Heterocyclic Chemistry.
- 3- Chromatography.
- 4- Organic Electrochemistry.
- 5- Advanced Physical Organic Chemistry.
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- 7- Carbohydrates.
- 8- Dyes.
- 9- Photochemistry.
- 10- Spectroscopy.
- 11- Polymer Chemistry.
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I. INTRODUCTION

1. Additives in General

The furnish of the writing and printing paper consists of two main components, namely the fibrous and nonfibrous component. A part from newsprint and magazine paper, the fibrous component is bleached chemical or semichemical pulp obtained from soft wood or hard wood. Beside wood, agricultural residues are used - but to lesser extent - for manufacture of paper pulps. In Egypt rice straw and sugar cane bagasse represent about 80% of the fibrous component of writing and printing paper. The nonfibrous portion of paper is added to the pulp during papermaking operations; therefore it is called "additive". Some additives are used for special purposes. Antifoam materials prohibit foaming of the pulp slurries. Other additives increase wet strength of paper. A further class of additives is used to colour paper. A part from these special additives, the most common additives can be classified in three main types: filling materials, sizing agents and binders. Despite many recent proposed sizing agents, rosin size is still the main substance used for sizing of paper. The objective of sizing is to retard the penetration of water or ink into the pores of paper and their spreading on the paper surface (1-3). This is achieved by the increase in the wetting angle-angle of contact between the paper and ink - due to the size. It is evident that sizing is of prime importance in case of writing papers. However many printing papers are fully sized or partly sized.