

بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

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SOME STUDIES ON THE STRUCTURAL MODIFICATIONS OF POLYAMIDE FIBRES

by

Wafaa Mousad Raslan

**A Thesis Submitted to the
Faculty of Engineering, Cairo University,
in Partial Fulfilment of the Requirements for the
Degree of
DOCTOR OF PHILOSOPHY
in
CHEMICAL ENGINEERING**

Under the Supervision of

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National Research Centre

**FACULTY OF ENGINEERING
CAIRO UNIVERSITY
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Preface

In the present work it is endeavoured to carry out a systematic study of the capability of inducing physical and/or chemical modification into polyamide 6 fibre structure. The modification is intended to facilitate the dyeing of the fibres. The induced modification of the fibre is planned to be assessed via various investigations such as change in dimensions and weight, fine structure, thermal stability, and dyeing behaviour of modified fibres towards acid and disperse dyestuffs.

The thesis is subdivided into two main parts entitled general part and special part. The former includes the introduction and the literature review, and the latter includes experimental work and results & discussions. The two parts consist of five main chapters:

Chapter I : General view on polyamide fibres.

Chapter II : Modification of polyamide fibres .

Chapter III : Experimental work

Chapter IV: Some characteristics of modified polyamide 6 fibres with
some organic compounds

Chapter V : Dyeing characteristics of polyamide 6 fabric treated with
some organic compounds

Summaries in english and arabic are also cited as well as a list of references.

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