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شبكة المعلومـــات الجامعية التوثيق الالكتروني والميكروفيا.



### جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها على هذه الأفلام قد اعدت دون آية تغيرات



### يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

40-20 في درجة حرارة من 15-20 منوية ورطوبة نسبية من

To be kept away from dust in dry cool place of 15 – 25c and relative humidity 20-40 %









# STUDIES ON PHYSICAL PROPERTIES OF SOME POLYMERS IN SOLUTIONS

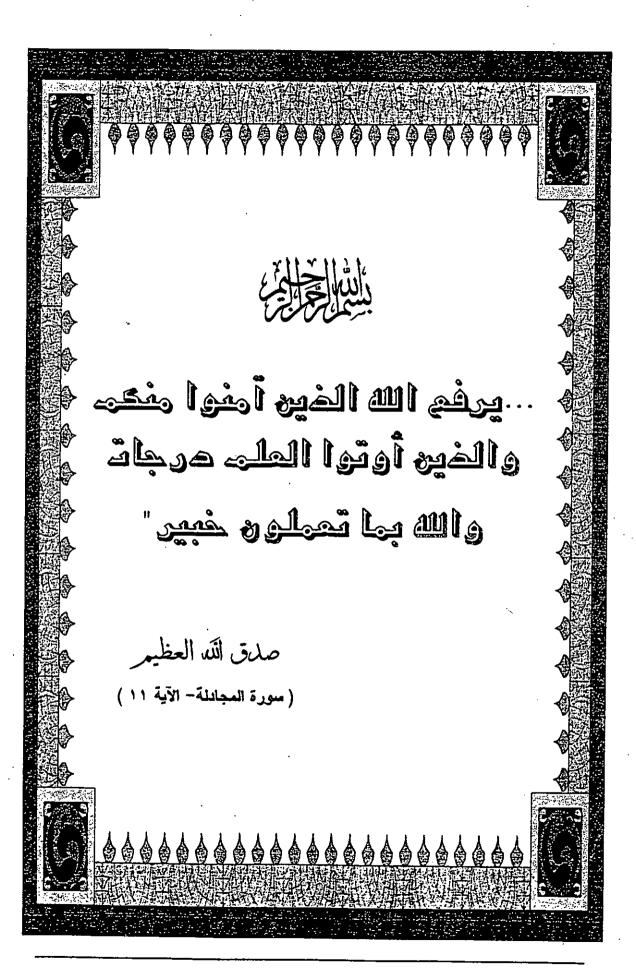
### **THISIS**

## SUBMITTED TO FACULTY OF SCIENCE,

**SUEZ - CANAL UNIVERSITY** 

For THE M.Sc. DEGREE IN CHEMISTRY

BY
GABER MAHMOUD EL - ENANY
(B.Sc)



This work was undertaken at the Phys. and Math. Eng. Dep. Faculty of Engineering Suez-Canal University, also in Polymers and Pigments Department, National Research Center under the Supervision of:

1. Prof. Dr. A.S.Badran

A.S.Badvan

2. Prof. Dr. M. S. M. El-Gharib

N.S. El-Gharlis

3. Dr. A. E. M. Ali

Department of
Polymers and Pigments
National Research Center

Faculty of Education
Suez-Canal University

Faculty of Science Suez-Canal University

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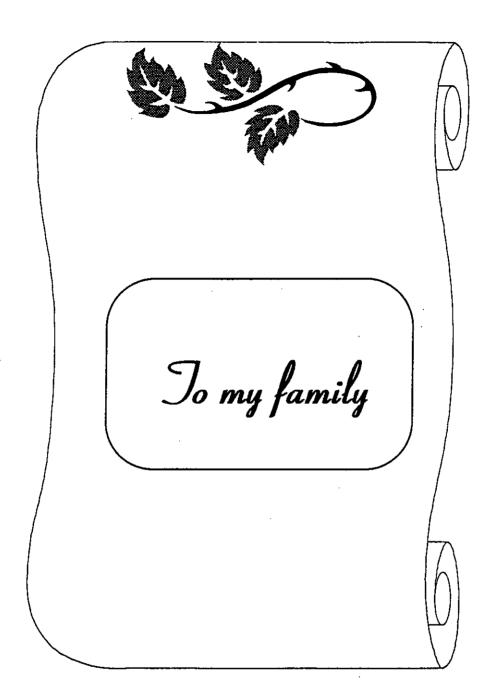
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# AIM OF THE WORK

### AIM OF THE WORK

Water soluble or dispersed clear microemulsion polymer solutions have found increasing commercial applications in pharmaceuticals, detergents, adhesives, textiles and many other applications.

The aim of the first part of the present work is to study the kinetics and mechanism of the microemulsion polymerization of styrene monomer using developed redox pair initiation system which consists of potassium persulphate as oxidizing agent with p-methyl benzaldehde sodium bisulphite adduct as an reducing agent. It is of interest to prepare different polystyrene microemulsion latices under different conditions for studding the rheological parameters of the prepared latices.

In the last part of the present investigation we intend to study, the effect of solvent on the unperturped dimensions of the poly(ethylene oxide) (PEO) in series of mixed solvents exhibiting synergistic effect, evolution of the expansion factor and effective hydrodynamic radius for PEO in each solvent mixture. Also, we intend to study the effect of isopropanol on the autodegradation of PEO.