



شبكة المعلومات الجامعية
التوثيق الإلكتروني والميكرو فيلم

بسم الله الرحمن الرحيم



MONA MAGHRABY



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التوثيق الإلكتروني والميكروفيلم



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلم



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جامعة عين شمس

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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY



كلية العلوم – قسم الكيمياء



Preparation and characterization of some functionalized
acrylate based compounds for utilization in
desulfurization of petroleum diesel fuel

Thesis Submitted by

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B.Sc. Chemistry 1999

M.Sc. Chemistry 2017

**For the requirement of Ph.D. Degree of Science in
Chemistry**

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2021



كلية العلوم – قسم الكيمياء



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ACKNOWLEDGEMENT

This journey would have been impossible without **God** helping and supporting so first of all, I am thankful for **Allah** for all what I have been given, to be patience and always have faith, I would like to express my sincere gratitude and indebtedness to **Prof. Dr. Ahmed Ismail Hashem**, professor of organic chemistry, Faculty of Science, Ain Shams University for his continuous and valuable discussions during supervision, I would like to express my thanks to him for his efforts in this thesis.

Also, I would like to express my sincere appreciation toward **Prof. Dr. Emad Ali Soliman**, Professor of Chemistry, Advanced Technology and new Materials Research Institute, City of Scientific Research and Technology Applications, **Dr. Nour-Eldin Ahmed Abdelsatar**, Assistant Professor of Organic Chemistry, Faculty of Science, Ain Shams University, **Dr. Ahmed Metwally El-Naggar**, Assistant Professor of Petroleum Chemistry, Egyptian Petroleum Research Institute and **Dr. Asmaa Said Morshedy**, Researcher at Petroleum Chemistry Department, Egyptian Petroleum Research Institute, for continuous supporting and following the progress of the work with keen interest and guidance.

Usama Abdallah Metwally

This thesis is dedicated to my family

A special thanks to **my lovely family** for their endless love, effort, unconditional support and encouragement in all phases of life. Also, for giving me support, strength, believing in me and their continuous motivating to achieve my goals throughout my life. Everything I am today is because of you. I am honored and blessed to have such a great family. God bless you all, and may my Father's soul rest in peace at heaven.

Love you all so much

Usama Abdallah

Abstract

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Student Name: Usama Abdallah Metwally

Title of the thesis: “Preparation and characterization of some functionalized acrylate based compounds for utilization in desulfurization of petroleum diesel fuel”

Degree: Ph.D. degree of science (chemistry) Ain Shams University

Petroleum refinery products with high sulfur content have many serious problems due to their environmental and industrial impacts. This problem had been the subject of public and research concern. This investigation represents a contribution in this field. Thus, composites made of some acrylate derivatives and nanometal oxides (Cu & Ni) were prepared and characterized by many analytical and spectroscopic tools. These composites were utilized as photocatalysts in the desulfurization process of diesel fuel obtained from Cairo Oil Refining Company.

The results obtained revealed that the photocatalysts used are efficient, and one of the composites used affected 97% sulfur removal. This high percentage of sulfur removal, indicated that the composites used here, are promising as photocatalysts in the desulfurization process.

Keywords: *sulfur content, desulfurization, composites, photocatalysts, acrylate derivatives, nanometal oxides.*