



Synthesis and investigation of some modified alkyl benzene as water-in-oil emulsion breakers.

A Thesis

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By

Eman Fakher Mohamed

(B.Sc. Chemistry, Ain Shams University, 2003)

Supervisors

Prof. Dr. Ahmed Fawzy El Kafrawy

Professor of organic chemistry
Faculty of science, Ain shams university

Prof. Dr. Ahmed Mohamed Ahmed Al-Sabagh

Prof. of Applied Chemistry
Director of Egyptian Petroleum Research Institute

Dr. Mahmoud Reyad Noor El-Din

Associate professor, petroleum applications department,
Egyptian petroleum research institute

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Approval sheet for submission

Name of the candidate: Eman Fakher Mohamed

Degree M.SC. Degree in chemistry

Title of M.SC. Thesis

Synthesis and investigation of some modified alkyl benzene as water-in-oil emulsion breakers.

This Thesis has been approved for submission by supervisors:

Prof. Dr. Ahmed Fawzy El kafrawy

Professor of Organic Chemistry

Faculty of Science, Ain Shams University.

Prof. Dr. Ahmed Mohamed Ahmed Al- Sabagh

Prof. of Applied Chemistry

Director of Egyptian Petroleum Research Institute.

Prof. Dr. Mahmoud Reyad Noor El-Din

Associate Professor, Petroleum applications Department,

Egyptian Petroleum Research Institute.

Head of Chemistry Department

Faculty of Science, Ain Shams University

Prof. Dr. Hamed Ahmed Younis Derbala

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List of abbreviations

A :	Crude acidity number.
API :	American Petroleum Institute.
BS&W :	Basic salt and water contents.
C :	constant.
CSt :	Cent stock.
EO :	Ethylene oxide.
FTIR :	Fourier Transform Infrared Spectroscopy.
HLB :	Hydrophile- Lipophile Balance.
¹HNMR:	Hydrogen Proton of Nuclear Magnetic Resonance.
K :	Is the slope of each line and is measured by the coalescence rate during that period.
L5 :	Estrified linear alkyl benzene sulfonic acid with 5 unit ethylene oxide .
L9:	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide .
L22 :	Estrified linear alkyl benzene sulfonic acid with 22 unit ethylene oxide .
L35 :	Estrified linear alkyl benzene sulfonic acid with 35 unit ethylene oxide .
L9P20 :	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide .then propoxylated with 20 unit propylene oxide .
L9P20E9:	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide and propoxylated with 20 unit propylene oxide then ethoxylated with 9 unit ethylene oxide.

List of abbreviations

L9P30 :	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide then propoxylated with 30 unit propylene oxide .
L9P30E9:	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide and propoxylated with 30 unit propylene oxide then ethoxylated with 9 unit ethylene oxide .
L9P40:	Estrified linear alkyl benzene sulfonic acid with 9 unit ethylene oxide then propoxylated with 40 unit propylene oxide .
LAB :	Linear alkyl benzene.
LABS :	Sulfonated linear alkyl benzene.
M.wt. :	Molecular weight.
M_H &H_L:	Molecular weight of hydrophilic portion of the molecule.
M_L&H_P	Molecular weight of lipophilic portion of the molecule.
OP :	Oil phase.
OPM :	An Optical Polarizing Microscope.
P :	Polymer of linear Alkyl benzene sulfonic acid.
P9 :	Ethoxylated linear alkyl benzene sulfonic acid polymer with 9 ethylene oxide unit .
P22 :	Ethoxylated linear alkyl benzene sulfonic acid polymer with 22 ethylene oxide unit.
P35 :	Ethoxylated linear alkyl benzene sulfonic acid polymer with 35 ethylene oxide unit .
PLABS :	Polymer of linear alkyl benzene sulfonic acid.
PO :	Propylene Oxide.
PPM :	Part per million.

List of abbreviations

RSN :	Relative Solubility Number.
S :	The interfacial area per gram of dispersed phase.
THF :	Tetrahydrofuran.
V% :	Water resolution.
Vo :	The volume of water in the initial emulsion.
Vwater :	The volume of separated water phase.
WD :	Water droplet.

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Abstract