



# NEWSLETTER ESChE

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## 1. Society News

### The 11<sup>th</sup> Annual Congress of the Ethiopian Society of Chemical Engineers (ESChE)

The 11<sup>th</sup> Annual Congress of the Ethiopian Society of Chemical Engineers (ESChE) was held on August 30, 2008 at the Conference Hall of the Faculty of Technology, Addis Ababa University. About 111 members attended the Congress. The Theme of the Congress was "*Leather technology*".

This report highlights some of the major events and outputs of the Annual Congress.

#### 1. Congress Proceedings

##### 1.1 Opening Session

Ato Asrat Bulbula, Chairman of the Organizing Committee of the 11th Annual Congress of ESChE, welcomed the Guest of Honor, invited guests and members of ESChE and introduced the programme of the Annual Congress. He then made some explanations about the Theme of the Congress and the reasons for selecting. He concluded

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his opening remarks by inviting Dr. Daniel Kitaw to make an opening speech.

The Guest of Honor, Dr. Daniel Kitaw, Director of University-Industry Partnership, in his opening speech, said that a lot is expected from chemical engineers and ESChE to the overall socio-economic development of the country in general and in respect of contribution to the development of the industrial sector in particular. After expressing the convictions of his institution to strive unreservedly for cooperation with professional societies such as ESChE and consequently create the necessary enabling environment for the promotion of industrialization in the country, Dr. Daniel Kitaw declared the Congress open.

## 1.2 Papers Presentation

Papers on Leather Technology and best two projects from the Chemical Engineering Department of the Bahir Dar University were presented in the technical sessions of the Congress. In addition to presentation on this year's theme, the technical papers presented were:

Paper I: Design of a Biogas plant for Bahirdar University

Paper II: Plant Design for the production of Biodiesel from Jatropha

### Session One: Approval of Annual Activity Report and Audit report

#### Annual Activity Report

Ato Andualem Ayalew, Office Manager of ESChE, presented the annual activity report of the Society. In his report, he stated that the executive committee started its activities by preparing an annual action plan. He further went to enumerate the most important activities accomplished in the period (2007-2008), which were.

- Publication of the annual journal and 4 newsletters;
- Updating Home-page development of ESChE
- Preparation of industrial training
- Initiation of an award program for four best students of the Chemical engineering Departments of Addis Ababa University & Bahir Dar University; (two from each)
- Promoting the "Coal based Fertilizer Industry

- Participation in the national chemical sector policy document preparation
- Participation in relevant workshops; and
- Overall capacity building of ESChE

In his report, Ato Andualem, stated that the activities planned for the year were more or less successfully implemented. However, he also admitted that the achievements were realized through the effort of some dedicated and responsible committee members.

To this end, Ato Asrat Bulbula, pointed out that a Society is as good and as efficient as its members and as effective as its executive committee. He also strongly remarked that although the Society is relatively in a good situation and modest achievements have been obtained a lot remains to be done in the future. And he called upon all members to jointly work towards the development of the Society and the chemical engineering profession.

To assure the strengthened continuity of the Society, special efforts were made to attract student memberships, and young graduates.

#### **Approval of Audit report and Indicative Action Plan**

The General Assembly has approved the Audit Report for the years 2006/7 and 2007/8 and the Indicative Action Plan for the year 2008/9.

### **Session Two: The Best Two Session**

In this session, two best papers selected as best papers of final year students from the Bahir Dar University were presented under the title:-

- i. *Design of a Biogas plant for Bahir Dar City by Yalew W/Amlak and Zena Markos Banti*
- ii. *Plan Design for the production of Biodiesel from Jatropa by Ashagrie Ambaye and Bantelay Sintayehu*

### **Session Three: Paper on Leather Technology**

In this session, paper that focuses on leather technology in Ethiopia was presented by Dr.Ing. Belay Woldeyes.

At the end of the presentation, a number of questions from the participants were raised, relevant inputs and suggestions were also forwarded.

### **Session Four: Business Session**

#### **Election of President and two Officers**

The General Assembly has thoroughly discussed and elected Ato Lelissa Daba, the director of the National Cleaner Production Center, as President and Ato Abessolom Assefa from the Chemical Engineering Department of the Addis Ababa University, and W/t Frehiwot Mengesha of the Gaia Association as Executive Committee Officers in place of Ato Debebe Yilma and Ato Habtamu Bayera who are on study leave abroad.

#### **Closing Ceremony**

In closing, Ato Asrat Bulbula, President of ESChE, expressed his appreciation to the participants and called upon members for their continuous support. The Congress was concluded with a cocktail party held at the Ras Hotel

## **2. Industrial Training**

One of the Objective of the Ethiopian Society of Chemical Engineers (ESChE) is to provide skill upgrading training for its members and Ethiopian industries as much as possible. ESChE has decided to launch the second cycle of industrial training programs in areas that are believed to be crucial . The main areas included

- Orienting and updating industrial practitioners to the state-of-the-art techniques and practices in the respective fields; and
- Developing the necessary skill required for the improvement of the industrial efficiency and competitiveness.

More specifically trainings were given in:

- Process Optimization and Product loss Control
- Industrial Waste Management and
- Integrated Management System

The training were conducted from October 20-31, 2008

Ethiopian Society of Chemical Engineers (ESChE) in collaboration with the Chemical Engineering Department of AAU had organized industrial training program on areas that are believed to bring modest change in productivity and industrial efficiency of the local industries.

The training was opened by Eng. Lelissa Daba, President of ESChE, on October 20, 2008 at the Conference Hall of the Faculty of Technology of the AAU. In this particular training, a total of 27 participants from different industries attended the training on Process Optimization and Product loss Control, Industrial Waste Management and Integrated Management System which was held for 2 weeks at

the Faculty of Technology (North), AAU. Resource persons were mobilized from the Chemical Engineering Department of the AAU.

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## 2. Miscellaneous

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### 2.1 Selected US Patents

Patent Number 5879469  
 Issue Date 1999-03-09  
 Assignee Name DEEAY TECHNOLOGIES, LTD.  
 Assignee Code 736595  
 Country IL  
 Classification 134/25.2 134/28 134/29 510/221  
 510/229 510/230 510/233  
 510/235  
 USAPat Volume ID US\_99\_10B

Title Dishwashing method and detergent composition therefore

Abstract A dishwashing method is disclosed wherein two detergent compositions, one being alkaline and the other acidic are applied in sequence onto the dishes. The liquid compositions are applied onto the dishes directly without or with only a moderate dilution such that once applied onto the dishes they input respective alkaline and acid pH's on the surface of the dishes.

Patent Number 5866529  
 Issue Date 1999-02-02  
 Assignee Name COLGATE-PALMOLIVE COMPANY  
 Assignee Code 110775  
 Country BE  
 Classification 510/425 510/423 510/424 510/426  
 510/427  
 USAPat Volume ID US\_99\_05C

Title High foaming nonionic surfactant base liquid detergent comprising gelatin beads  
 Abstract A high foaming, nonionic surfactant based, light duty, liquid detergent with desirable cleansing properties and mildness to the human skin comprising a water soluble nonionic surfactant, a sulfate anionic surfactant, a sulfonate anionic surfactant, a water soluble, foaming zwitterionic betaine surfactant, an oil containing gelatin bead, a clay and water.

Patent Number 5866527  
 Issue Date 1999-02-02  
 Assignee Name COLGATE-PALMOLIVE COMPANY  
 Assignee Code 110775  
 Country BE  
 Classification 510/422 510/365 510/424  
 510/425 510/506 510/508  
 USAPat Volume ID US\_99\_05C

Title All purpose liquid cleaning compositions comprising anionic EO nonionic and EO-BO nonionic surfactants Abstract An improvement is described in all purpose liquid cleaning composition which is especially effective in the removal of oily and greasy soil and also exhibiting improved foam collapse properties, contains an anionic detergent, an ethoxylated nonionic surfactant, an ethoxylated/butoxylated nonionic surfactant, optionally, a partially esterified ethoxylated polyhydric type alcohol, a hydrocarbon ingredient, and water.

Patent Number 5861367  
 Issue Date 1999-01-19  
 Assignee Name COLGATE-PALMOLIVE COMPANY  
 Assignee Code 110775  
 Country BE  
 Classification 510/365 510/238 510/417  
 510/422 510/424 510/434 510/437  
 510/505 510/506 510/508  
 USAPat Volume ID US\_99\_03B

Title Cleaning and disinfecting composition in microemulsion/liquid crystal form comprising aldehyde and mixture of partially esterified, fully esterified and non-esterified polyhydric alcohols Abstract An improvement is described in the liquid crystal composition or the microemulsion compositions, which is especially effective in the removal of oily and greasy soil and having an evidenced grease release effect, contains an

anionic detergent, an ethoxylated glycerol type compound, a hydrocarbon ingredient, and water which comprises the use of a water-insoluble odoriferous perfume as the essential hydrocarbon ingredient in a proportion sufficient to form a dilute o/w microemulsion composition containing, by weight, 1% to 20% of an anionic detergent, 0.1 to 50% of a cosurfactant, 0.1% to 10% of the ethoxylated glycerol type compound, 0 to 1.0% of an aldehyde, 0.4% to 10% of perfume and the balance being water.

Patent Number 5856293  
 Issue Date 1999-01-05  
 Assignee Name COLGATE-PALMOLIVE COMPANY  
 Assignee Code 110775  
 State NJ  
 Classification 510/428 510/218 510/424  
 510/426 510/429 510/503  
 USAPat Volume ID US\_99\_01B

Title Light duty liquid cleaning compositions Abstract A light duty liquid detergent with desirable cleansing properties and mildness to the human skin comprising: two different sulfonate surfactant, an alkali metal or ammonium salt of a C.sub.8-18 ethoxylated alkyl ether sulfate anionic surfactant, a betaine surfactant, an alkyl polyglucoside surfactant, an ethoxylated C.sub.12-C.sub.14 monoalkanol amide and water.

Patent Number 5856293  
Issue Date 1999-01-05  
Assignee Name COLGATE-PALMOLIVE COMPANY  
Assignee Code 110775  
State NJ  
Classification 510/428 510/218 510/424 510/426  
510/429 510/503  
USAPat Volume ID US\_99\_01B

Title Light duty liquid cleaning compositions  
Abstract A light duty liquid detergent with desirable cleansing properties and mildness to the

human skin comprising: two different sulfonate surfactant, an alkali metal or ammonium salt of a C.sub.8-18 ethoxylated alkyl ether sulfate anionic surfactant, a betaine surfactant, an alkyl polyglucoside surfactant, an ethoxylated C.sub.12-C.sub.14 monoalkanol amide and water.

Patent Number 5856291  
Issue Date 1999-01-05  
Assignee Name COLGATE-PALMOLIVE COMPANY  
Assignee Code 110775  
State NJ  
Classification 510/426 510/235 510/242 510/365  
510/416 510/417 510/470  
USAPat Volume ID US\_99\_01B

Title Light duty liquid cleaning composition containing alkyl sucroglycerides

Abstract A light duty liquid detergent with desirable cleansing properties and mildness to the human skin comprising: a sulfonate surfactants, an alkali metal or ammonium salt of a C.sub.8-18 ethoxylated alkyl ether sulfate anionic surfactant, a sucroglyceride surfactant, an alkyl polyglucoside surfactant, and water.

### 3. ESChE SHOWCASE

#### **The Institutional Members of ESChE:**

- *Abijata Soda Ash Sh.Co.*
- *Addis Ababa Bottle & Glass Sh.Co.*
- *Matador Addis Tyre Sh.Co.*
- *Alkyd Resin Sh.Co.*
- *Awash Melekassa Aluminum Sulphate & Sulphuric Acid Sh.Co.*
- *Chora Gas and Chemical Products Factory*
- *Dire-Dawa Food Complex Sh.Co.*
- *Ethiopia Tannery Sh.Co.*
- *Ethiopian Petroleum Enterprise*
- *Finchaa Sugar Factory*
- *Industrial Projects Service*
- *Mugher Cement Enterprise*
- *Repi Soap and Detergent Factory*
- *Sunlight Industrial and Distribution Company*
- *Plastech P.L.C*
- *Ethiopian Pulp & Paper Sh. Co.*
- *Ambo Mineral Water Factory*
- *Calub Gas Sh. Co. (Now dissolved)*
- *Pharmacure P.L.C*
- *Modern Bulding Industries*
- *IACONA Engineering*
- *GAIA Association*

*“Be part of the National Science and Technology building effort by being a Member of ESChE.”*

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