



# BOOK OF ABSTRACTS

Second Gulf Chemists Union Symposium  
*Al Manama, 25 April 2019*

**“The Role of Chemists in Facing the Oil Chalinges”**

Editor:

*Dr. Hassan Al-Rabiah,*

Organized by  
**Gulf Chemists Union**

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# Second Gulf Chemists Union Symposium Committees

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## Scientific Advisor

Dr. Hassan Al-Rabiah , *Kuwait Institute for Scientific Research*

## Organizing Committee

Dr Abdulwahed Al-Nakal, Chairman, Gulf Chemists Union

Mr. Jamal Al-Otaibi, General Secretary, Gulf Chemists Union

Mrs Huda Al-Nasar, Assistant General Secretary, Gulf Chemists Union

Mr. Saeed Abbas Treasurer, Gulf Chemists Union

Dr. Hassan Al-Rabiah , *Kuwait Institute for Scientific Research*



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2019

## General Information

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## **Location**

Golden Tulip Bahrain Hotel  
P.O.Box: 1090  
Old Palace Road  
Manama, Kingdom of Bahrain  
Phone: +973-17523515

## **Registration**

Registration counters open on 25 April 2019 from 8:00-9:00 at  
outside Gilgamesh Ballroom

## **Scheduled Hours**

Scientific Program 25 April 2019 from 9:00-2:00

# Symposium Schedule

## Second Gulf Chemists Union Symposium

Time	25 April 2019
8:00-9:00	Registration
9:00-9:15	<p style="text-align: center;"><b>Opening Speeches</b>            Dr Abdulwahid Al-Nakal, Chairman, Gulf Chemists Union            Mr. Jamal Al-Otaibi, General Secretary, Gulf Chemists Union</p>
<b>Session 1: Petroleum Industry Catalysis Challenges</b> <b>Session Chairs:</b> <b>Dr Hassan Al-Rabiah, Kuwait Institute for Scientific Research, Kuwait</b> <b>Dr. Prof. Sadeq. Alawi , University of Bahrain, Kingdom of Bahrain</b>	
9:15-9:55	<p><b>PL-1: "Spent catalyst Technology Management: An Overview"</b>  <b>Dr. Meena Marafi, Petroleum Research Center, Kuwait Institute for Scientific Research , Kuwait</b></p>
9:55-10:15	<p><b>L-1: "The role chemists in catalysis for petroleum refining and petrochemicals"</b>  <b>Dr. Shakeel Ahmed, Center for Refining &amp; Petrochemicals Research Institute, King Fahd University of Petroleum &amp; Minerals, Kingdom of Saudi Arabia</b></p>
10:15-10:35	<p><b>L-2: "Environmentally friendly inhibitor of the corrosion of mild steel: commercial oil of Eucalyptus"</b>  <b>Dr Baraa. Hafez, Department of Chemistry, College of Sciences, University of Sharjah, UAE</b></p>
10:35-11:05	Coffee Break
<b>Session 2: Petroleum Industry Analytical Challenges</b> <b>Session Chairs:</b> <b>Prof. Zeid A. ALOthman, King Saud University, Kingdom of Saudi Arabia</b> <b>Dr Mahmoud A Mohsin, Department of Chemistry, University of Sharjah, UAE</b>	
11:05-11:45	<p><b>PL-2: "Multidimensional Gas Chromatography for Molecular Analysis of Petroleum Products"</b>  <b>Dr Hassan Al-Rabiah, Petroleum Research Center, Kuwait Institute for Scientific Research, Kuwait</b></p>
11:45- 12:05	<p><b>L-3: "The role of X-ray analyses in supporting the Industrial sector"</b>  <b>Mr. Hussain Halwachi, Aluminium Bahrain (Alba). Manama, Kingdom of Bahrain.</b></p>
12:05-12:15	<p><b>L-4 Sponsor Lecture: "ProLab Systems your Lab Solution Provider"</b>  <b>Zaid Al-Mosheky, Prolab Systems</b></p>
12:15-12:45	Prayer & Coffee Break
<b>Session 3: Petrochemical Materials Challenges</b> <b>Session Chairs:</b> <b>Dr Meena Marafi, Kuwait Institute for Scientific Research, Kuwait</b> <b>Dr. Shakeel Ahmed, King Fahd University of Petroleum &amp; Minerals, Kingdom of Saudi Arabia</b>	
12:45-1:05	<p><b>L-5: "Developing advanced materials for Oil and Petrochemical industries"</b>  <b>Prof. Zeid A. ALOthman, Advanced Materials Research Chair, Department of Chemistry, College of Science, King Saud University, Kingdom of Saudi Arabia</b></p>
1:05-1:25	<p><b>L-6: "Petroleum to Plastics and Back to Fuels"</b>  <b>Mahmoud A Mohsin, Department of Chemistry, University of Sharjah, UAE</b></p>
1:25-1:45	<p><b>L-7: "Acoustic behavior of sodium surfactants in molten acetamide, N-methyl acetamide and N, N-dimethyl acetamide"</b>  <b>Prof. Sadeq. Alawi, Department of Chemistry , University of Bahrain, Kingdom of Bahrain</b></p>
1:45-2:00	<b>Concluding Remarks</b>
2:00	Lunch



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# Abstracts

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## SPENT CATALYST TECHNOLOGY MANAGEMENT: AN OVERVIEW

**Dr. Meena Marafi**

*Kuwait Institute for Sci. Research, Petroleum Research Centre  
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The quantity of spent hydroprocessing catalysts discarded as solid wastes in the petroleum refining industries has increased remarkably in recent years due to a rapid growth in the hydroprocessing capacity to meet the rising demand for low sulfur fuels. Due to their toxic nature, spent hydroprocessing catalysts have been branded as hazardous wastes, and the refiners are experiencing pressure from environmental authorities to handle them safely. Several alternative methods such as reclamation of metals, rejuvenation and reuse, disposal in landfills and preparation of useful materials using spent catalysts as raw materials are available to deal with the spent catalyst problem. The technical feasibility as well as the environmental and economic aspects of these options are reviewed.

## THE ROLE CHEMISTS IN CATALYSIS FOR PETROLEUM REFINING AND PETROCHEMICALS

**Dr. Shakeel Ahmed**

*Center for Refining & Petrochemicals, Research Institute  
King Fahd University of Petroleum & Minerals, Dhahran-31261, Saudi Arabia  
e-mail: [shakeel@kfupm.edu.sa](mailto:shakeel@kfupm.edu.sa)*

Catalysis is a critical enabling science for petroleum refining and petrochemical industries. More than 90% of the chemicals produced worldwide are the direct result of catalytic processes. Improvements in catalytic processes across the chemical and petroleum industries increase resource and energy utilization efficiencies and overall environmental footprints. Virtually all of the products used by modern societies for fuels, chemicals, polymers, and pharmaceuticals, as well as for abatement of air and water pollution, depend on catalysts. In the future, cost-effective, environmentally sound utilization of energy resources such as heavy oil will require new catalysts and processes. Other areas such as advanced multifunctional materials, hydrogen storage and carbon dioxide capture and sequestration could benefit from new abilities to catalyze solid-state reactions.

To meet these challenges, we must advance the field from catalyst discovery to catalyst design. This advance will require not only a new level of understanding of reaction mechanisms and dynamics to specify the structure and properties of the catalyst, but synthetic tools to manufacture catalysts at the atomic level and spectroscopic and computational tools to probe catalysts in working environments. This demands our ability, as a chemist to design catalytic systems to accomplish any desirable transformation of chemical and energy resources and to minimize undesirable impacts of their utilization. In the current presentation we will identify main challenges, crosscutting issues, and priority directions for research needs in the areas of refining and petrochemicals. Case studies of some of the advanced catalyst developmental work projects will be presented to high light the role of a chemist in this area of paramount research.

## ENVIRONMENTALLY FRIENDLY INHIBITOR OF THE CORROSION OF MILD STEEL: COMMERCIAL OIL OF EUCALYPTUS

**Baraa. Hafez<sup>1</sup>, Hicham. Elmsellem<sup>2</sup>, Hanae. Steli<sup>3</sup>**

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*2 Laboratory of Applied Analytical Chemistry, Materials and Environment, Faculty of Science, B.P. 717, 60000 Oujda, Morocco*

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Acid solutions are generally used for removing undesirable scale and rust on metals, cleaning boilers and heat exchangers, oil-well acidizing in oil recovery, and so on. HCl is one of the most widely used agents. However, iron and its alloys can be corroded during such applications, which results in a waste of resources. Corrosion prevention systems favor the use of chemicals with low or no environmental impacts. A study assessing plant extracts as corrosion inhibitors is important because of the potential economic and environmental benefits. This study employed a strategy to evaluate the effectiveness these molecules against corrosion of mild steel in acid media. Many plant extracts have been used as corrosion inhibitors of iron or steel in acidic media.

This research aims to determine the antioxidant activity of basil and examine the effects of commercial oil of Eucalyptus on inhibition of corrosion with mild steel in hydrochloric acid by electrochemical methods. The DPPH scavenging activity of commercial oil of Eucalyptus is less than ascorbic acid. The results of the polarization curves show that the

corrosion current density decreases from 0.3618 mA/cm<sup>2</sup> to 0.0869 mA/cm<sup>2</sup> with the addition of the Coob inhibitor. The charge transfer resistance increases from 21.11 ohm.cm<sup>2</sup> to 166.3 ohm.cm<sup>2</sup> in the electrochemical impedance spectrum after the addition of the oil Eucalyptus inhibitor.

Key words: Eucalyptus oil; Antioxidant; Inhibition; Corrosion; Mild Steel.

# MULTIDIMENSIONAL GAS CHROMATOGRAPHY FOR MOLECULAR ANALYSIS OF PETROLEUM PRODUCTS

**Dr Hassan Al-Rabiah**

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The crude oils processability assessment requires in-depth compositional information to understand the chemistry of refining processes. Chromatography has played significant role in the oil industry for very long time. The main motive for this is the fact that chromatography is an exceptional technique for analyzing the complex samples from the petroleum industry. The complexity of petroleum fractions is not because of the number of different chemical groups of compounds, but the total number of isomers that can be present in them. What makes the task more difficult is the fact that, unlike other complex samples, in which only a few specific compounds have to be identified from the matrix, in petroleum fractions the components of the matrix itself are the analytes. This makes a complete compositional analysis using a single dimensional separation of petroleum fractions with boiling points above 100 °C absolutely impossible. Consequently, multidimensional chromatography has been introduced as a means of increasing the separating efficiency. The ever-growing petroleum industries fuelled the rapid growth of multidimensional systems development for analyzing petroleum fractions. This presentation will give an overview on background on multidimensional chromatography and its applications in the petroleum industry emphasising on the ability multidimensional chromatography to determine the molecular composition petroleum fractions.

## THE ROLE OF X-RAY ANALYSES IN SUPPORTING THE INDUSTRIAL SECTOR

**Hussain Al Halwachi**

*Aluminium Bahrain (Alba). Manama, Kingdom of Bahrain.*

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In a highly competitive industrial market, analytical support plays a massive role in evaluating final productions, control processes, and recycling byproduct waste. X-ray diffraction (XRD ) and x-ray fluorescence (XRF) considered as the analytical core of several industrial fields, such as Metals, petrochemicals, polymers, Pharma , mining and Cement. The highly accurate instrument were able to replace many wet chemical methods, reducing chemical usage and improving data reporting time. Recently, XRD and XRF becomes much closer to user by dedicating specialized applications and instrument to each filed, aiming to satisfy customer needs and improve the analytical support.

## DEVELOPING ADVANCED MATERIALS FOR OIL AND PETROCHEMICAL INDUSTRIES

**Prof. Zeid A. ALOthman**

*Advanced Materials Research Chair, Department of Chemistry, College of Science, PO Box 2455, King Saud University, Riyadh 11451, Kingdom of Saudi Arabia*

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Materials are probably more deep-seated in our culture than most of us realize. To one degree or another, Materials influence every segment of our everyday lives. The developments of societies have been always linked to the members' ability to produce and manipulate materials to fill their needs. In fact, early civilizations have been designated by the level of their materials development (i.e., Stone Age, Bronze Age).

This work contains a selected research collection of our group aimed to develop an advanced materials promoting a new strategies in the development of oil, Petrochemical, energy, water and environmental systems — the key components that affect the quality of life on our planet.

Metal-organic frameworks (MOFs), silica core-shell materials, chiral selectors, nonporous catalysts, carbon nanotubes, functionalized polymers and mesoporous silica particles among other materials have been selected for discussion. The applications of those materials including separation, detection and purification of chemicals, petrochemicals, forensic and hazardous materials as well as heavy metals from environmental and water applications. Energy applications include storage of light gases (Hydrogen and light hydrocarbons).

## PETROLEUM TO PLASTICS AND BACK TO FUELS

**Dr. Mahmoud A Mohsin**

*Department of Chemistry, University of Sharjah, P.O. Box 27272 Sharjah, UAE*

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Petroleum is a term refers to crude oil, solid hydrocarbon and natural gas mixture. It contain mainly hydrogen and carbon in addition it may contain also water, sulfur compounds, oxygen, nitrogen, carbon dioxide and traces of metals. It was formed from the remains of prehistoric plants and animals remains settled into the seas along with sand, silt and rocks over hundreds millions of years ago.

Global oil consumption in the year 2018 reached almost 100 million barrels per day which is more than twice what it was 50 years ago. Of the 100 million barrels of oil consumed daily, more than 60 million barrels per day goes as fuel for various transport engines. Much of the remaining oil is used to make plastics by petrochemicals industry that has few alternative feedstocks. The synthetic plastics are often designed to mimic the properties of natural materials like natural rubber, cotton, silk, and fibers. Plastics or polymers are produced by different polymerization processes from primary chemicals known as monomers generally coming from oil, natural gas, or coal, and are used in variety of applications. The variability of the plastic types permits plastic materials to be tailored to a specific design and performance requirements. This is why certain plastics are best suited for some applications while others are best suited for entirely different applications. One of the major application of plastic is in the food packaging industries, among those polymers used in these applications is the Polyethylene terephthalate or (PET) for bottled water and wide range of beverages. The reason for this application is due to the excellent mechanical and thermal properties. Polyacrylamide or (PA) is another important polymer which is used in our research project to combat desertification in the arid region of the Gulf states. Disposal of waste plastic is of great concern for environment and marine lives, as it takes decades to decompose if left in the environment as waste and not reutilized. On the other hand, continuous increase in industrialization and urbanization has created more demand on fuel energy. This paper gives an overview on how plastics are being synthesized, applied, and recycled in order to resolve the both issues of waste plastic management, and the requirement of an alternative source of fuel energy.

## ACOUSTIC BEHAVIOR OF SODIUM SURFACTANTS IN MOLTEN ACETAMIDE, N-METHYL ACETAMIDE AND N, N- DIMETHYL ACETAMIDE

**Prof. S. Alawi\*, M Akhter, A. Shah and M. Jaben**  
*Department of Chemistry, University of Bahrain, Kingdom of Bahrain*

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The results of ultrasonic velocity of sodium surfactants solutions show that micelles are formed in molten acetamide (AA), in N-methyl acetamide (NMA) and in N,N-dimethyl acetamide (DMA). The critical micelle concentration, (CMC), the acoustical and thermodynamic parameters of various sodium surfactants in molten acetamide (AA), N-methyl acetamide (NMA) and in N, N-dimethyl acetamide (DMA) of varying compositions were evaluated from the ultrasonic velocity measurements at  $90\pm 0.2$  °C (for AA);  $30\pm 0.2$  °C (for NMA) and  $22\pm 0.2$  °C (for DMA) respectively. The results of CMC were found in excellent agreement with those obtained from other properties. The acoustical parameters such as the adiabatic compressibility ( $\beta$ ), intermolecular free length ( $L_f$ ) and solvation number ( $S_n$ ) decrease while the specific acoustic impedance ( $Z$ ), apparent molal compressibility ( $\Phi_k$ ), apparent molal volume ( $\Phi_v$ ) and molar sound velocity ( $R$ ), increase with increasing sodium surfactant concentration. The ultrasonic results show that sodium surfactants behave as weak electrolytes in dilute and the micellization process is dominant over the dissociation process. The thermodynamic parameters, such as Gibbs energy changes, enthalpies and entropies of micelle formation, have been determined by studying the variation of critical micelles concentration (CMC) with temperature.








## Speakers Short C.V


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	Name	<b>DR. MEENA ABDUL-NABI MARAFI</b>
	Presentation Title	<b>Spent Catalyst Technology Management: An Overview</b>
	Affiliation	<b>Kuwait Institute for Scientific Research</b>
	Job Title	<b>Executive Director/Principle Research Scientist</b>
	Contacts	Petroleum Research Center Kuwait Institute for Scientific Research P.O. Box 24885, 13109-Safat-Kuwait Tel. 965-23987672, Fax. 965-23987673 mmarafi@kISR.edu.kw
Education	<b>Ph.D., Chemical Engineering</b> from Aston University, England, 1997. <b>M.Phil. Chemical Engineering</b> from Aston University, England, 1988. <b>B.Sc., Chemistry and Geology</b> , Kuwait University, 1975.	
Work Experience	April 1, 2013-present 2010 - 2013 2001-March 2013 1996-2001 1984-1996 1980-1984 1975-1980	Executive Director/Petroleum Research Center Kuwait Institute for Scientific Research Assigned as Chairperson/PRC Science & Technology Steering Committee, in charge of five scientific research programs <b>Manager/Petroleum Refining Department</b> Petroleum Research & Studies Center Research Program Element Leader for Catalysis Associate Research Specialist, Petroleum Technology Department/Petroleum, Petrochemicals and Materials Division, Kuwait Institute for Scientific Research Research Associate, Petroleum Technology Department, Kuwait Institute for Scientific Research Instructor, Chemistry and Biochemistry Department, Kuwait University, Teaching several courses and in charge of laboratories assignment and research for Master Degree in Biochemistry.
Publications	I have <b>3</b> patents and over <b>121</b> publications, including <b>3</b> books, <b>4</b> book chapters, <b>36</b> papers published in refereed and reputable journals, <b>40</b> papers presented in international/regional/local conferences, and <b>44</b> reports (technical reports/final reports/progress reports related to projects carried out). I led <b>16</b> contractual R&D projects in the area of petroleum refining and catalysis	
Awards	* Received 2017 Leadership Excellence for Women Awards & Symposium (LEWAS) in Bahrain during 9-11 October 2017. * Received the 'Women in Oil Industry Excellence Award', during the '15 <sup>th</sup> Global Women Leaders Conference' in Dubai, during 7-8 March 2012. * Awards and Gold Medal received for the following inventions: <ul style="list-style-type: none"> <li>• Recovery of Special Grade Aluminas such as Boehmite and <math>\gamma</math>-Al<sub>2</sub>O<sub>3</sub> with controlled Pore Size from Spent Hydroprocessing Catalysts. US Patent No. 12/862,946. (2012).</li> <li>• Recovery of Valuable Metals from Spent Hydroprocessing Catalyst by Ultrasonic Assisted Leaching with EDTA. US Patent No. 12/943,619. (2012)</li> <li>• KFAS award for the best invention for 2010. During the 3<sup>rd</sup> International Invention Fair of the Middle East hosted by Kuwait Science Club during the period 7-9 Nov. 2010, in Kuwait.</li> </ul> * Winner of Kuwait Foundation for the Advancement of Sciences prize for scientific production in the field of Engineering (2008). * Recipient of the prize for best project for KISR Strategic Plan 1995-2000 for PT001C project (Optimization of a Continuous Process for the Rejuvenation of Spent Hydroprocessing Catalysts). Funded by KFAS and EPC.	

	Name	Dr. Shakeel Ahmed
	Presentation Title	The role of chemists in catalysis for petroleum refining and petrochemicals
	Affiliation	King Fahd University of Petroleum & Minerals
	Job Title	Research Scientist
	Contacts	<a href="mailto:shakeel@kfupm.edu.sa">shakeel@kfupm.edu.sa</a> Mobile: +966 56 413 3428 Office: +966 13 860 3428
Education	<b>Ph.D., King Fahd University of Petroleum &amp; Minerals, Dhahran, Saudi Arabia (1995), Chemistry (Catalysis).</b> <b>M.Phil., Quaid-e-Azam University, Islamabad, Pakistan (1989), Analytical/Inorganic Chemistry.</b> <b>M.Sc., Quaid-e-Azam University, Islamabad, Pakistan (1987), Analytical/Inorganic Chemistry.</b>	
Work Experience	<ul style="list-style-type: none"> <li>○ Research Scientist-II/Associate Professor Center for Refining &amp; Petrochemicals, KFUPM, 2005-present.</li> <li>○ Research Scientist-II/Assistant Professor Center for Refining &amp; Petrochemicals, KFUPM, 1995-2005.</li> <li>○ Production Manager, RockWall, Pak Canadian Pvt. Ltd., 1990.</li> </ul>	
Awards	<ul style="list-style-type: none"> <li>• Distinguished Researcher Award, KFUPM-RI, 2019.</li> <li>• Patents incentive awards, 2018-2019 for 5 granted patents from H.E. the Rector, King Fahd University of Petroleum &amp; Minerals.</li> <li>• Patents incentive awards, 2017-2018 for 14 granted patents from H.E. the Rector, King Fahd University of Petroleum &amp; Minerals.</li> <li>• Distinguished Researcher Award-RI, 2014-2015 and patents incentive awards from H.E. the Rector, King Fahd University of Petroleum &amp; Minerals.</li> <li>• Excellence in Leading a Research Team Award in the Research Institute, 2013-2014 and patents incentive awards from H.E. the Rector, King Fahd University of Petroleum &amp; Minerals.</li> <li>• Awarded the Gold Medal by the Grand Jury of 41<sup>st</sup> Geneva Inventions, April 2013, Geneva, Switzerland.</li> <li>• Distinguished Researcher Award - 2007-2008 from H.E. the Rector, King Fahd University of Petroleum &amp; Minerals.</li> <li>• 2007 Engineering Services Recognition Award, from Vice President, ES, Saudi Aramco, May, 2008.</li> <li>• Certificate of recognition from R&amp;DC, Saudi Aramco, for significant contribution to the TNR catalyst and process development, 2007.</li> <li>• Best Paper Award, "Proton conductivity measurement &amp; characterization of novel solid proton conductor from heteropolyacids loaded Y-zeolite," at International Conference on Electrochemical Power Systems (ICEPS-2), December, 2004, India.</li> </ul>	

	Name	Dr. Hassan Al-Rabiah
	Presentation Title	Multidimensional Gas Chromatography for Molecular Analysis of Petroleum Products
	Affiliation	Kuwait Institute for Scientific Research
	Job Title	Associated Research Scientist
	Contacts	<b>Address</b> Petroleum Research Center, PRC Kuwait Institute for Scientific Research, KISR P.O. Box 24885 13109-Safat-Kuwait <b>Phone</b> + (965) 24956933, <b>Mobil:</b> + (965) 66311033 <b>Email:</b> <a href="mailto:hrabiah@kISR.edu.kw">hrabiah@kISR.edu.kw</a> , <a href="mailto:hrabiah@gmail.com">hrabiah@gmail.com</a>
Education	<ul style="list-style-type: none"> <li>• PhD in Petroleum Chemistry, University of Leeds, UK 2003</li> <li>• MPhil in Petroleum Chemistry, University of Leeds, UK 1997</li> <li>• BSc in Chemistry, Kuwait University, Kuwait 1989</li> </ul>	
Work Experience	<ul style="list-style-type: none"> <li>• Extensive experience in petroleum products testing and characterization.</li> <li>• Expert in crude oil assays crude oil blending and blend stability.</li> <li>• Principle investigator and task leader for various R&amp;D projects in the petroleum chemistry field.</li> <li>• Experienced in advanced analytical procedures and techniques used for the molecular characterization of crude oil and petroleum products especially Multidimensional Chromatography.</li> <li>• Knowledgeable in Supercritical fluids interaction with crude oils.</li> <li>• Conducted several training courses in Crude Oil and Petroleum Products Characterization and Refining Processes</li> </ul>	
Awards		

 <p>to be inserted here</p>	Name	Hussain Abdulla Al Halwachi
	Presentation Title	( the role of X-ray analyses in supporting the Industrial sector)
	Affiliation	Alba Laboratory- Aluminium Bahrain (Alba)
	Job Title	Senior Chemist
	Contacts	39466423
Education	<p><b>Master in Business administration (MBA) from essec University- France- collaboration with FABS in Arabian Gulf University.</b></p> <p><b>B.Sc. in Chemistry + education from University of Bahrain.</b></p>	
Work Experience	<p><b>21 years of experience in industrial Laboratories.</b></p>	
Awards	<p><b>Selected in (Who is Who in the world) list in 2009 and 2010.</b></p> <p><b>Awarded in the 26<sup>th</sup> honouring ceremony for outstanding private sector employees (Excellence 2010) on 29 December 2010.</b></p> <p><b>Awarded the certificate of excellence from R&amp; D Carbon-Switzerland in 2016, due to the high accuracy and maintaining good performance in Baked Anode Laboratory.</b></p>	

	Name	Zeid Abdullah ALOthman
	Presentation Title	Developing advanced materials for Oil and Petrochemical industries
	Affiliation	Chemistry Department, College of Science, King Saud University, P. O. Box 2455, Riyadh 11451, KSA
	Job Title	Professor
	Contacts	+966-11-4675999 <a href="mailto:zaothman@ksu.edu.sa">zaothman@ksu.edu.sa</a>
Education	<ul style="list-style-type: none"> <li>- 1999 – 2006: PhD from College of Art &amp; Science, Oklahoma State University, Oklahoma State, USA</li> <li>- Specialty: Analytical and Environmental Chemistry (GPA 3.92/4.00)</li> <li>- "Synthesis, Modification and Application of Mesoporous Material Based on MCM-41" (Dec. 2006)</li> <li>- 1993 – 1997: B.Sc. from College of Science, King Saud University, Riyadh, KSA.</li> <li>- Specialty: Chemistry (GPA 4.58/5.00 with honor degree) July 1997</li> </ul>	
Work Experience	<ul style="list-style-type: none"> <li>- Scientific Production/Impact</li> <li>- 14 funded projects from National Plan for Science and Technology (KACST), KSU.</li> <li>- 2 funded projects from SABIC.</li> <li>- 3 funded research groups from KSU.</li> <li>- More than 15 supervised PhD and M.Sc students.</li> <li>- 15 patents, 1 Books and 9 Book Chapters.</li> <li>- 268 Research articles: □268 articles in recognized international journals in chemistry and separation science; such as, ACS applied materials &amp; interfaces (7.6 I.F.), Analytical Chemistry (6.08 I.F.), Desalination (5.82 I.F.), ACS Sustainable Chemistry and Engineering (5.7 I.F.), Analytica Chimica Acta (5.01 I.F.), Food Chemistry (4.85 I.F.), Journal of Chromatography A (3.97) etc;</li> <li>- More than 2719 citations with h-index of 26.</li> <li>- More than 25 conference participation in national &amp; international conferences</li> </ul>	
Awards	<ul style="list-style-type: none"> <li>- 2015: Awarded Al-marai Prize for the "Best Research Unit" Advanced Materials Research Chair.</li> <li>- 2014: Awarded Al-marai Prize for the "Best Creative Research Work" (Co researcher).</li> <li>- 2014: King Saud University Award of Excellence in Research quality (1st place).</li> <li>- 2013: King Saud University Award of Excellence in Research density of publication (1st place).</li> <li>- 2011: The American Ceramic Society Best Paper Award.</li> <li>- 2010: King Saud University Award of Excellence in Research (Top 10).</li> <li>- 2006: Prince Bandar Bin Sultan award for academic excellence.</li> <li>- 1998: Scholarship offered by King Saud University to Study M.Sc. and Ph.D. degrees The USA.</li> <li>- 1996: Award of College of Science Scientific Preeminence, King Saud University, Riyadh, KSA.</li> </ul>	

	Name	Sadeq M. Alawi*
	Presentation Title	<b>Acoustic behavior of sodium surfactants in molten acetamide, N-methyl acetamide and N, N-dimethyl acetamide.</b>
	Affiliation	University of Bahrain
	Job Title	Dean
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Education	PhD in Molecular Photochemistry of group d6 metal carbonyl, and Non aqueous solution. 1997	
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PUBLICATIONS	<p>1: Thermodynamics of dissociation and micellization of sodium surfactant solutions in formamide, S.M. Alawi and M.S. Akhter, JSCS (In press).  2: Ultrasonic Velocity Measurements of Sodium Surfactants N, N-dimethyl acetamide S.M. Alawi, J.Orien.Chem. (In press).  3: Effect of N-methyl acetamide on the critical micelle concentration of aqueous solutions of some surfactants, S. M. Alawi and M.S.Akhter, TheJournal of the Korean Chemical Society, Vol. 55, No. 2, 163-168 (2011).  4: Effect of N,N-dimethyl acetamide on the critical micelle concentration of aqueous solutions of sodium surfactants, S. M. Alawi and M.S.Akhter, Journal of the Molecular Liquids, Vol. 160, No. 2, 63-66 (2011).</p>	