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2009 Program

October 13 - 14, 2009

Galveston Island, Texas

XRF Sample Cups

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2009 Conference Schedule

Monday October 12, 2009
11:30 AM Lunch
12:30 PM Shotgun Start
Gulf Golf Tournament

Moody Golf Course

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7:00 - 10:00 PM

Moody Gardens Hotel - Moody Ballroom

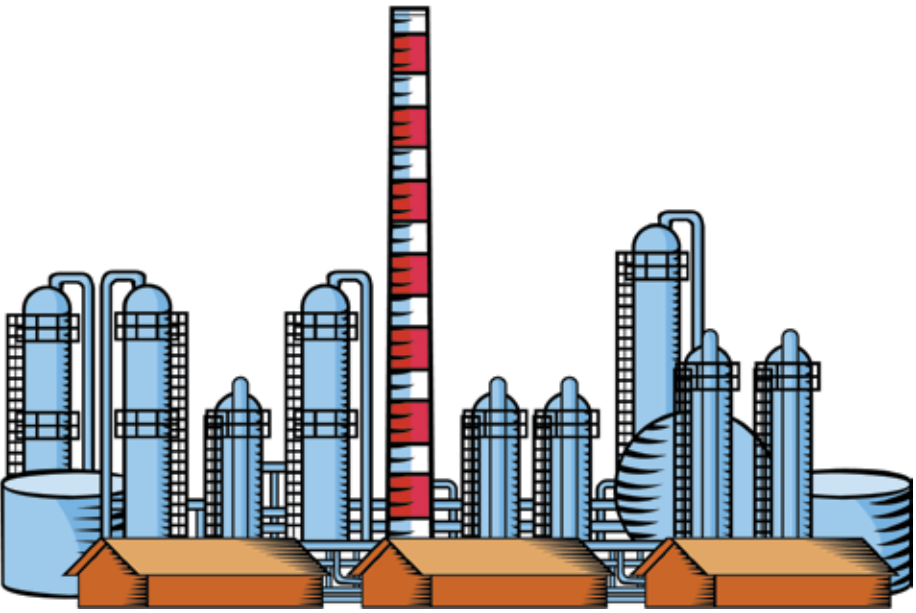
Tuesday October 13, 2009

9:00 AM Presenter of The Years Forum

9:00 AM -5:00 PM
Technical Sessions
Exhibits
New Product Showcase - 11:30 AM - 1:00 PM - Exhibit Hall Center

5:00 PM - 6:00 PM
Vendor Meeting
Floral Hall A

Wednesday October 14, 2009
8:30 AM - 5:00 PM
Technical Sessions
Poster Sessions
Exhibits
New Product Showcase - 11:30 PM - 1:00 PM



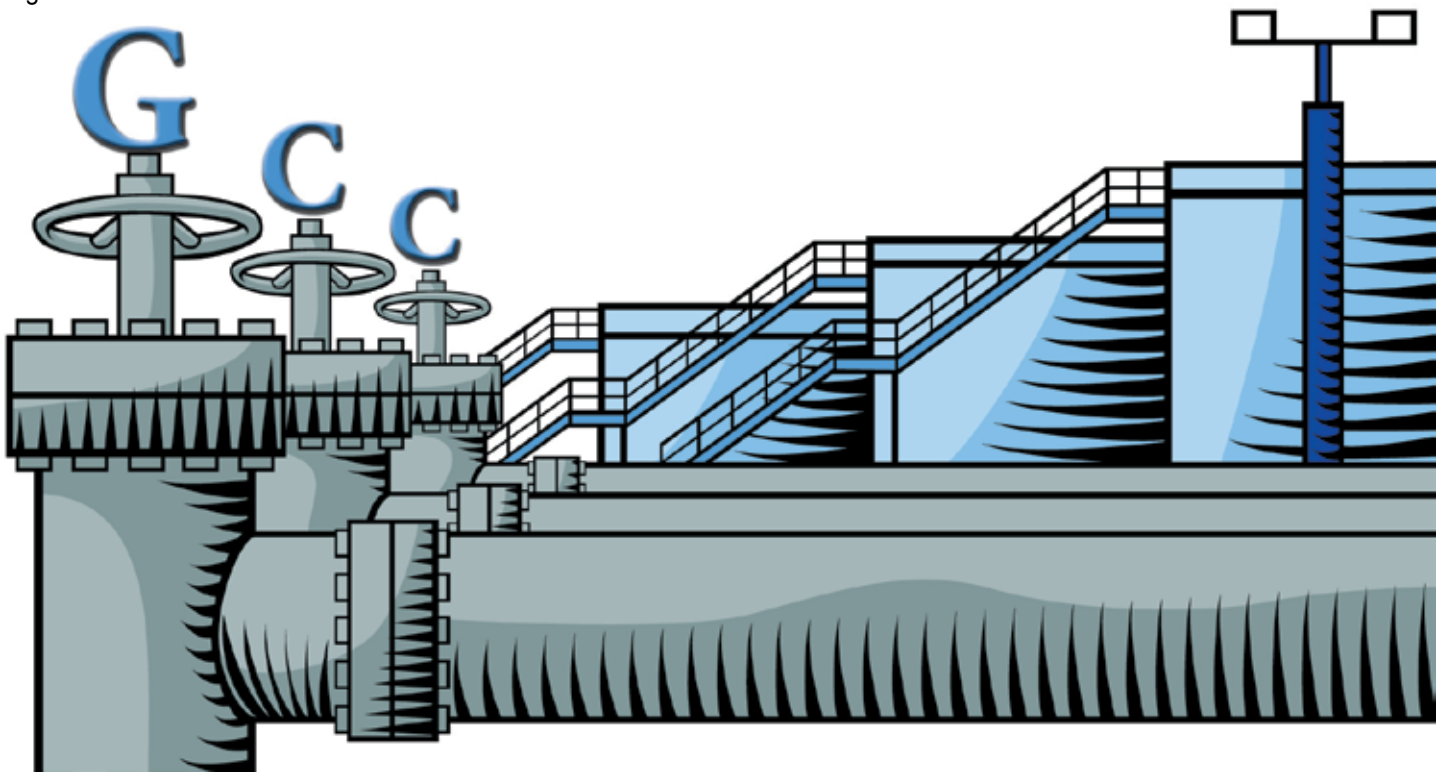
Gulf Coast Conference Program

Submissions for publication are encouraged and should be sent to the Editor at the above addresses. Advertising rates, material requirements, deadlines, etc. should be addressed to the above addresses as well.

POSTMASTER: Send address changes to: **The Gulf Coast Conference Program,** 14090 FM 2920, Suite G-146 Tomball, TX 77377

Mission Statement

"To provide GCC attendees with news, technical & business information which will educate about the petrochemical, refining, environmental, and industrial hygiene fields and professions." The Gulf Coast Conference program will focus on the industry trends and news, regulatory activities, technical information, and the successful implementation of various technical & business methodologies important to those professions. Conference business, events and activities will also be communicated. -- Opinions, claims, conclusions and positions expressed in this publication are the authors' or persons quoted and do not necessarily reflect the opinions of the editor, GCC or the Gulf Coast Conference Program.



Notes from the rolltop...

Welcome to the 2nd GCC Program of 2009! With a postponed meeting last January, and our regularly scheduled meeting in October, we have been working hard to bring together a high qualtiy meeting and exhibition and bring the best from our industry together. The economy we find in 2009 has also produced new challenges, but despite these, we are very pleased to provide this fine program and for your review. This program reflects our industry's current developments, progress, and achievements toward advancing the science of chemical analysis. You will again find new and innovative methods, techniques, and processess at the 2009 GCC, as well as refinements to older solutions which will help resolve old problems for many of you.

The total technical program for 2009 is outstanding! The quantity of technical presentations for our regularly scheduled October meeting has been diluted by the earlier meeting in January, but the exciting and predictive trend we have seen by our attendee presenters brings great optimism regarding this year and future meetings. More than 20% or submissions this year are from innovative thought leaders from within the analytical laboratory community.The quality of work submitted for presentation, number of high quality workshops, training courses, and seminars is very encouraging. It is also very exciting to see collaborative work between vendors and industry to produce solutions of value to all. Innovation and practical solutions are products of such interaction and our industry and this conferece will continue to embrace and encourage this exchange.

Consistent improvement is always a goal, and this year's GCC will not be an exception. Based upon suggestions of our vendor community, we are continuing the format begun last year to allow for a more focused technical group of presentations and in a more compact time frame. Consequently, the technical meeting will be a very full two days. To accomodate this change and in an effort to provide a more reasonable technical schedule and allow each of you the opportunity to attend more technical sessions, yet still have ample time to visit the sponsoring vendors, the GCC has adapted a different scheduling format. We will have more simultaneous sessions for you to choose from for attendance, yet still have more breaks to allow for vendor interaction and exhibition hall visits. During the lunch hour on Tuesday, attendees and exhbitors all will be provided food in the exhibit hall through the generous and exclusive sponsorship of Chemplex Industries, Inc. and Analytical Services, Inc.

Every exhibiting vendor at the GCC makes a significant investment and contribution toward the production of a quality meeting every year. Whether it is a group of new businesses joining together to share a booth, a single new technical idea for presentation in the technical session, or a large mega company displaying their newest innovations, the exhibiting vendors are the bedrock of the conference. Without this support, there would be no meeting, and the organizers of the meeting sincerely appreciate the efforts of all. This level of support and commitment by all will help to advance the GCC as the "best in class" conference for technical exchange in the petrochemical, refining, and environmental business place.

Some highlights for the 2009 meeting:

New and Mature Analysis - It is clear from Abstract Submissions this year that elemental analysis has emerged as rapidly growing analytical techniques of this year.

Two Dimensional GC Seminar - The event this year has again been organized by Bill Winniford and Kefu Sun of Dow Chemical Company. They have brought together an outstanding group of contributors to present and discuss the latest efforts and improvements in this field, and presenters from industy, academia, and vendors will be discussing this ever growing field.

New Product Showcase (NPS) - The 5th annual NPS will provide a central location in the center of the exhibit hall for selected vendors to show off and demonstrate their latest and newest advances in products, software, and methods. For 1 1/2 hours each on Tuesday and Wednesday of the meeting, you are asked to stop by this special exhibit area and review what you see. Significant awards will be given to those vendors selected as "Best in Class" and for the reviewers (you) a special Lifetime GCC Conference Registration will be given to one individual randomly chosen from completed review forms (available through our volunteers in charge of the NPS). We are asking that you fill these forms out with your opinions. This will be helpful to the exhibiting vendors and perhaps provide new information for you and your company regarding new capaibilities.

Presenter of the Years Forum - Over the past several years, we have recognized contributors to the GCC program with the annual Presenter of the Year Award. We are planning a special Tuesday morning session in which many of our past award receipients will provide short discussions regarding current topics and a discussion about future trends with "Can Innovations in Analytical Chemistry and Instrumentation Meet Challenges of the New Economy"? Don't miss this chance for a perspective and view by some of our most important technical contributors.

Join us this year. Whether this will be your first GCC or your 30th, whether you are a lab tech, chemist, engineer, lab or plant manager, the "New Idea Machine" of the Gulf Coast Conference will be the premier place for education and innovation in your field. Register today with the form found across from this page or on-line at www.gulfcoastconference.com

See you in October!

Bob Kibler
President
Gulf Coast Conference

2009 Registration Form

October 13-14, 2009
Moody Gardens Hotel & Convention Center

Please send the completed form and a check for $95.00
made payable to Gulf Coast Conference
or fill out MasterCard/VISA/AMEX/Discover information below & send to:

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Tomball, TX 77377

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☐ I want to attend Papers and Exhibits ($95.00)

☐ I want to see the Exhibits only No Charge (Not available to Exhibitors)

☐ Check Enclosed with the Application (Registration will only be complete upon receipt of payment)

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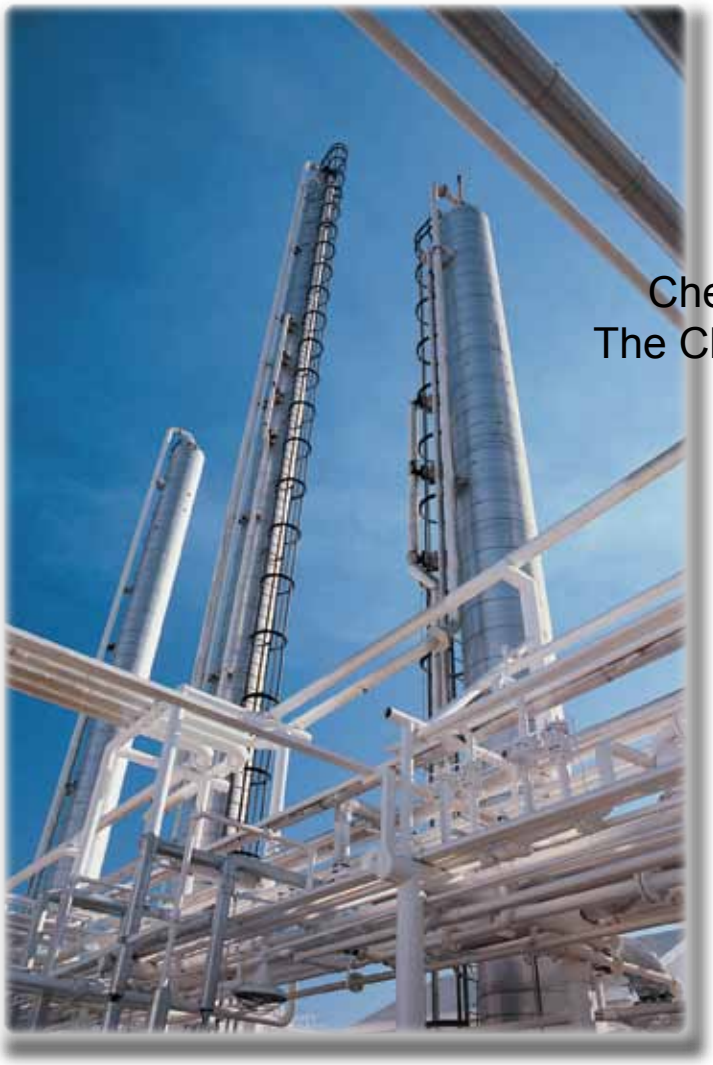
Register Online at www.gulfcoastconference.com

Presenter of the Year Forum



"Can Innovations in Analytical Chemistry and Instrumentation Meet The Challenges of the New Economy?"

For the past ten years, the GCC has recognized a presenter every year for their cumulative work and contributions to the annual program. This group of individuals represent the technical leadership exhibited by many of our contributors over the years, and also provide a significant source of business, technical and scientific expertise that has proven to be useful and timely to our attendees and web visitors throughout the year.

To kickoff the 2009 GCC, we are beginning the session with this forum. We have invited many past award winners to participate in a roundtable discussion of their views as they consider "Can Innovations in Analytical Chemistry and Instrumentation Meet Challenges of the New Economy?" This topic might stimulate discussions regarding green technololgies, cleaner hydrocarbon based technology, innovations in manufacturing and production, etc. The vision of this group surely will portend trends and directions for our industry and we are sure that this group will provide a great introduction and discussion to our annual meeting.

This session will be held in the Floral Hall A at the Moody Gardens Convention center and will start at 9:00 AM on Tuesday October 13th. Each of our past award winners will have an opportunity to present a "view" of the future, followed by a roundtable discussion and Q&A with the audience. The 2009 Presenter of the Year Awardee will be announced, and members of the press have been invited to participate as well.

2008 Presenter of the Year

Each year, the Gulf Coast Conference recognizes and honors one author for their contributions to the annual program. For 2008 (announced at the delayed meeting of January 2009), the decision was made to recognize a relatively new but yet significant contributor to the GCC, Alexander Seyfarth of Bruker AXS. Alexander has contributed to the collective knowledge base of technology relating to the analytical techniques of elemental analysis utilizing X Ray Spectroscopy as it relates to the petrochemical and refining industires. Through his good work, these methods and techniques have been improved and utilized throughout these industries. The use of this analytical instrumentation in analysis of oils, petrochemicals, sulfur, etc. and received adoption and utilization throughout the industry. His efforts and contributions to this field have resulted in savings of time and resources in the laboratory, as well as better analysis results, which in turn have translated to significant improvements.

At the 2008(9) GCC Presenters of The Year Forum, Alexander was recognized for his outstanding contributions to the GCC and for his efforts to contribute to the advancement of the sciences of elemental analysis. Additionally, Alexander has worked to advance the field by working with other X Ray Spectroscopy companies to add to the users knowledge base within the community. Congratulations and many thanks to Alexander and his company - Bruker AXS for their continued efforts!

To see and meet the 2008 Presenter of the Year, be sure to attend the Tuesday AM "Presenter of the Year Forum" to be held at 9:00 AM October 13th, 2009 in Floral Hall A. The announcement of the 2009 Awardee will be made during this GCC "kickoff" meeting.

2008 Awardee
Alexander Seyfarth
Bruker AXS

New Product Showcase

The 2009 Gulf Coast Conference will again sponsor the New Product Showcase event to provide a forum for the introduction of new technology and innovation to our attendees. On Tuesday and Wednesday of the meeting from 11:30 AM - 1:00 PM there will be special table top displays with new products and technology for your examination. Several vendors will provide these products and personnel to describe them during these specific times in the central section of the Exhibit Hall.

We are asking all Attendees to stop by and take a look at these products and complete an opinion survey about what you see. One survey will be drawn on Wednesday afternoon from the completed surveys and that person will receive a LIFETIME registration to the Gulf Coast Conference!

The GCC will appreciate your participation, and we know that the participating vendors will as well!

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Just some of the participants in the 2009 New Product Showcase!

2009 CONFERENCE SCHEDULE

Tuesday Session - October 13, 2009

Floral Hall A

Presenters of the Year Discussion – 9:00 AM – 60 minutes – Tuesday

Abstract# 65 - 10:30 AM - 90 minutes - Floral Hall A - Tuesday
"Innovative Gas-phase Analytical Techniques for Material and Process Characterization"
R.R. Freeman, T.Ramus, S Hein, T. Yuzawa

Multi-Dimensional Chromatography Seminar

Organized and Moderated by Bill Winniford and Kefu Sun of The Dow Chemical Company

Abstract# 62 - 1:00 PM - 20 minutes - Floral Hall A - Tuesday
"Fundamentals of Comprehensive Two Dimensional Gas Chromatography (GC x GC)"
Bill Winniford, Kefu Sun, James Griffith, Jim Luong, Matthias Pursch - Dow Chemical

Abstract# 63 - 1:20 PM - 20 minutes - Floral Hall A - Tuesday
"Use of Retention Indices to Assist in Structural Identification by GCxGC/TOFMS"
Kefu Sun, Bill Winniford - Dow Chemical

Abstract# 70 - 1:40 PM - 20 minutes - Floral Hall A - Tuesday
"Development of a Two-Dimensional Retention Index System for GCxGC"
John Dimandja, Scott J. Hoy, Nicholas V. Hud - Georgia Institute of Technology

Abstract# 61 - 2:00 PM - 30 minutes - Floral Hall A - Tuesday
"Improving the Analysis of FAMEs in Jet Fuel using GC/MS combined with Heart-Cutting 2-D GC"
James McCurry, Bruce Quimby and Ruby Ong - Agilent Technologies

Abstract# 78 - 2:30 PM - 30 minutes - Floral Hall A - Tuesday
"Refinery Gas Analysis by Multi Dimensional Gas Chromatography and Micro-GC. A Complete Solution"
Coen Duvekot - Varian Inc.

Abstract# 54 - 3:00 PM - 20 minutes - Floral Hall A - Tuesday
"Investigation Into Using a Quadrapole Mass Selective Detector in Combination with Simple Capillary Flow Tees for Flow Modulated GC x GC-MSD"
James Griffith, Bill Winniford, Jim Luong and Kefu Sun - The Dow Chemical Company

Abstract# 50 - 3:20 PM - 20 minutes - Floral Hall A - Tuesday
"Comprehensive Two-Dimensional Gas Chromatography (GCxGC) Analysis of Aviation Fuel Contaminated with Biodiesel"
John V. Seeley, Carly T. Bates, James D. McCurry, and Stacy K. Seeley - Oakland University

Abstract# 73 - 3:40 PM - 20 minutes - Floral Hall A - Tuesday
"A New and Improved ASTM D3606 Method"
Tom Adamski - Alpha Omega Technologies, Inc.

Bluebonnet

Abstract# 1 - 10:00 AM - 20 minutes – Bluebonnet - Tuesday
"Advances and Gaps in Shelterless Process Gas Chromatographs"
Ademola Idowu and Wayne Kubala - Dow Chemical Company

Abstract# 71 - 10:20 AM - 30 minutes – Bluebonnet - Tuesday
"Making Process Gas Chromatography Plug-and-Play"
Brian Rohrback - Infometrix, Inc.

Abstract# 21 – 10:50 AM - 30 minutes – Bluebonnet - Tuesday
"Temporary Online FTIR Spectroscopy for Process Troubleshooting"
Serena Stephenson, Roger Gagnon, Lamar Dewald, Wendy Flory, JD Tate - The Dow Chemical Company

Abstract# 11 - 11:20 AM - 20 minutes – Bluebonnet - Tuesday
"Meeting the Challenges of Biofuels Blend Measurements with Portable, Easy-to-Use Analyzers"
Sandra Rintoul - Wilks Enterprise, Inc.

Abstract# 28 - 1:00 PM - 3 hours – Bluebonnet - Tuesday
"Direct Multielement Analysis of Petrochemicals and Fuels By XRF! A Primer on X-Ray Spectrometry for EDX and WDX"
Alexander Seyfarth (BRUKER AXS) Al Martin (THERMO FISHER)

Abstract# 42 - 4:00 PM - 30 minutes – Bluebonnet - Tuesday
"Complying with EPA Method Modifications 1664A Utilizing Automated SPE"
Robert S Johnson - Horizon Technology, Inc.

Abstract# 44 - 4:30 PM - 30 minutes – Bluebonnet - Tuesday
"Evaluation of a New Technique in Miniaturized Solid Phase Extraction"
Rob Freeman, Dan DiFeo, Paul Wynne, and Peter Dawes - SGE Analytical Science

Daffodil

Abstract# 7 - 9:00 AM - 3 hours – Daffodil - Tuesday
"Basic Titration Principles"
Tore Fossum - Mettler Toledo, Inc.

Abstract# 16 - 1:00 PM - 3 hours – Daffodil - Tuesday
"Titration Training Course"
Tore Fossum - Mettler Toledo, Inc.

Hibiscus

Abstract# 83 - 9:30 AM - 30 minutes - Hibiscus - Tuesday
"BTEX in Plant Waters using the 7683 Autosampler and 5769 Instrumentation"
Matthew Monagle, Advanced Industrial Chemistry

Abstract# 37 - 10:00 - 30 minutes – Hibiscus - Tuesday
"Application of a Novel Atmospheric Pressure GCMS Interface in Environmental and Food Safety Analysis"
Jordan Blodgett, Doug Stevens, Anthony Newton - Waters Corp

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Abstract# 9 - 10:30 AM - 45 minutes – Hibiscus - Tuesday
"Improved Hydrocarbon Analysis with GC-MS with Supersonic Molecular Beams"
Aviv Amirav, Alexander B. Fialkov, Alexander Gordin and Marina Poliak - Tel Aviv University

Abstract# 55 - 11:15 AM - 30 minutes – Hibiscus - Tuesday
"New Analytical Valve Technology from AFP"
Gordon McFarlane, Yves Gamache - Analytical Flow Products

Abstract# 53 - 1:00 PM - 20 minutes – Hibiscus - Tuesday
"Implimentation of a PTV Inlet and Column Backflush for Increased Throughput of High Molecular Weight Polyolefin Oligomer Samples"
Chanda Ciriacks Klinker, James Griffith, Bill Winniford, & Shayne Green - The Dow Chemical Company

Abstract# 8 - 1:20 PM - 40 minutes – Hibiscus - Tuesday
"Green Gasoline Volatility Prediction"
Walter Spieksma - Envantage Inc.

Abstract# 74 - 2:00PM - 30 minutes – Hibiscus - Tuesday
"GEANNA High Speed Refinery Gas Analyzer A Versatile, Multi-Application Analyzer"
Rich Addonizio - Alpha Omega Technologies, Inc.

Abstract# 14 - 2:30 - 20 minutes – Hibiscus - Tuesday
"SIMDIST Analysis Of Petroleum Distillates And Biofuels By Ultra Fast GC"
Aaron Mendez and Vincent Otten – PAC

Abstract# 18 – 2:50 PM - 20 minutes – Hibiscus - Tuesday
"Rapid DHA Analysis Using Hydrogen Carrier and Enhanced Cool-Down without Cryogen"
Terrance Osenbach, John Irion, and Massimo Santoro – PerkinElmer

Abstract# 26 - 3:10 PM - 30 minutes – Hibiscus - Tuesday
"Benefits of a New Micro-Channel Wafer Technology in Traditional Petrochemical Applications"
Andrew Tipler, Leeman Bennington, Heidi Grecsek – PerkinElmer

Abstract# 38 - 3:45 PM - 30 minutes – Hibiscus - Tuesday
"The Ultra Fast Determination of Biogas Composition by Micro-GC"
Coen Duvekot, Hans van den Heuvel - Varian Inc.

Abstract# 39 – 4:15 PM - 30 minutes – Hibiscus - Tuesday
"Determination of Low Level Impurities in Ethylene and Propylene by Gas Chromatography"
Coen Duvekot and James Pachlhofer - Varian Inc.

Iris

Abstract# 64 - 1:00 PM - 4 hours – Iris - Tuesday
"Thermo Scientific Seminar"
Michael Harter - Thermo Scientific

Wednesday Session - October 14, 2009

Floral Hall A

Abstract# 20 - 9:40 AM - 20 minutes - Floral Hall A - Wednesday
"Care and Feeding of Liquid Phase Calibration Mixtures"
Daniel Bartel, David Gannon - Airgas Specialty Gas

Abstract# 58 - 10:00 AM - 20 minutes - Floral Hall A - Wednesday
"Total Sulfur in Petroleum Products - A Realistic Expectation by ICP?"
Matthew Cassap, Thermo Fisher Scientific, Cambridge UK

Abstract# 48 - 10:20 AM - 20 minutes - Floral Hall A - Wednesday
"Analytical Simultaneous Determination Of Total Sulfur And Nitrogen By NCD And UV-Fluorescence"
B. Sausse; F. Fang, M. Neuffer, M. Homan and A. Mendez - PAC

Abstract# 27 - 10:45 AM - 20 minutes - Floral Hall A
"Analytical Advances For The Simultaneous Boiling Range Distribution Of Hydrocarbons, Sulfur And Nitrogen By GC And Chemiluminescence"
Vincent Otten; Erwin B. Barendregt and Rik Suijker - PAC / AC Analytical Controls

Abstract# 4 - 11:05 AM - 20 minutes - Floral Hall A - Wednesday
"Analysis of Hydrogen Sulfide and Mercaptan in Petroleum Products"
Tore Fossum, Chris Hynes - Mettler Toledo, Inc.

Abstract# 6 - 11:25 AM - 20 minutes - Floral Hall A - Wednesday
"Excimer UV Fluorescence"
Franek Olstowski - ATOM Instrument Corp.

Abstract# 32 - 1:00 PM - 60 minutes - Floral Hall A - Wednesday
"Outsourcing Quality as a Cost Reduction Strategy"
Gretchen McAuliffe - EM2 Solutions Inc.

Abstract# 33 - 2:00 PM - 60 minutes - Floral Hall A - Wednesday
"Standard Operating Procedures - The Backbone of the Analytical Laboratory"
Gretchen McAuliffe - EM2 Solutions Inc.

Abstract# 68 - 3:00 PM - 60 minutes - Floral Hall A - Wednesday
"LIMS Preparation: Defining Business Practices to Save Cost during the Configuration Phase"
Jeanne Mensingh - EM2 Solutions, Inc.

Abstract# 69 - 4:00 PM - 60 minutes - Floral Hall A - Wednesday
"Preparing the LIMS Request for Proposal and Evaluating the Vendors"
Jeanne Mensingh - EM2 Solutions, Inc.

Bluebonnet

Abstract# 15 - 10:00 AM - 20 min – Bluebonnet - Wednesday
"Single Pellet Analysis of Additives in Polyolefins using X-ray Fluorescence"
Donald W. Burns - Dow Chemical

Abstract# 76 - 10:20 AM - 30 minutes – Bluebonnet - Wednesday
"Sulfur in Fuel Measurement Using X-ray Technology"
Michael C. Pohl, David Malone, Rudy Haas - Horiba Instruments, Inc.

Abstract# 29 - 11:00 AM - 30 minutes – Bluebonnet - Wednesday
"T XRF How to Analyze Small Samples for Elements in PPM,PPB Range Without Digestion!"
Michael Rider, Alexander Seyfarth - Bruker AXS Inc.

Abstract# 47 - 11:30 AM - 20 min – Bluebonnet - Wednesday
"Advances in EDXRF for the Analysis of Lube Oils and Wastewater"
Scott Fess - Applied Rigaku Technologies, Inc.

Abstract# 19 - 1:30 PM - 30 min – Bluebonnet - Wednesday
"Thermo Petro WDXRF- New Design Solutions for Advanced Analysis in Todays Economy"
Al Martin - Thermo Fisher Scientific

Abstract# 77 - 2:00 PM - 30 min – Bluebonnet - Wednesday
"Thermo PetroilQuant - Complete WDXRF Petrochemical Analysis Package"
Al Martin - Thermo Fisher Scientific, Mario Van Driessche - X-Ray Services

Abstract# 79 - 2:30 PM - 30 minutes – Bluebonnet - Wednesday
"Introducing the new ultra-compact WDXRF for Sulfur Analysis of Petrochemical Products - ASTM 2622 compliant equipped with Petro-Pak. The ultimate full service sulfur analysis soltion"
Laura Oelofse - Rigaku Americas Corp

Abstract# 31 - 3:00PM - 45 minutes – Bluebonnet - Wednesday
"ULS Sulfur Using WDXRF - How You can Succeed with D2622!"
Alexander Seyfarth Bruker AXS - Bruker AXS

Daffodil

Abstract# 17 – 8:45 AM - 60 minutes – Daffodil - Wednesday
"Troubleshooting Petrochemical Applications"
Jaap de Zeeuw - Restek Corporation

Abstract# 67 – 9:45 AM - 20 minutes – Daffodil - Wednesday
"Thick Film Columns for Gas Analysis and Valve Switching Techniques"
Johan Kuipers, Max Erwine, Coen Duvekot, Norbert Reuter - Varian B.V.

Abstract# 66 – 10:05 AM - 20 minutes – Daffodil - Wednesday
"Capillary Columns for High Temperature GC Based on Improved Liquid Phase Technology"
Johan Kuipers, Max Erwine, Coen Duvekot, Norbert Reuter - Varian B.V.

Abstract# 10 - 10:30 AM - 30 minutes – Daffodil - Wednesday
"Latest Developments in High Temperature Analysis: Inert Rxi-Columns that go to 400C"
Jaap de zeeuw, Jan Pijpelink, Valeri Strom, Barry Burger and Roy Lautamo - Restek Corporation

Abstract# 3 - 11:00 AM - 30 minutes – Daffodil - Wednesday
"Analysis of Gases and Volatiles using the New Range of Bonded PLOT columns: Extending Stability of PLOT Columns and Revisiting the use of Metal PLOT Columns."
Jaap de Zeeuw, Rick Morehead, Jan Pijpelink, Tom Vezza and Barry Burger - Restek Corporation

Abstract# 60 - 1:00 PM - 3 hours – Daffodil - Wednesday
"Agilent 7890 GC Method Developers Workshop"
James McCurry, Roger Firor, and Bruce Quimby - Agilent Technologies

Hibiscus

Abstract# 41 - 9:00 AM - 30 minutes – Hibiscus - Wednesday
"Dionex HPLC Column Overview"
Jawad Pashmi, Matthew Neely = Dionex Corporation

Abstract# 22 - 9:30 AM - 30 minutes – Hibiscus - Wednesday
"A Revolution in Chromatography Software"
Jawad Pashmi, Matthew Neely - Dionex Corporation

Abstract# 23 - 10:00 AM - 60 minutes – Hibiscus - Wednesday
"Addressing the Sample Preparation Bottleneck: New Solutions for Ion Chromatography"
Kirk Chassaniol - Dionex Corporation

Abstract# 24 - 11:00 AM - 60 minutes – Hibiscus - Wednesday
"Dionex IC/HPLC Users Group Panel Discussion"
Lisa Lenehan, Matthew Neely, Chuck Costanza, Kirk Chassaniol - Dionex Corporation

Abstract# 2 - 1:00 PM - 45 minutes – Hibiscus - Wednesday
"Advances in Modern FTIR Spectrometers and IR Microscopes"
Cam MacIsaac - Thermo Electron

Abstract# 13 – 1:45 pm - 20 minutes – Hibiscus - Wednesday
"Quantification of Sulphur and Nitrogen in Soil Employing Mid IR studies by Diffuse Reflectance Fourier Transform Infrared Spectroscopy"
Manas Kanti Deb, Devsharan Verma, Santosh Kumar Verma - Pt. Ravishankar Shukla University

Abstract# 12 - 2:15 PM - 30 minutes – Hibiscus - Wednesday
"NMR Study of Isolated 2,1-inverse Insertion in Isotactic Polypropylene"
Zhe Zhou1, James C. Stevens, Jerzy Klosin, Rainer Kümmerle, Xiaohua Qiu, David Redwine, Rongjuan Cong, Angela Taha, Jeff Mason, Bill Winniford, Paul Chauvel and Nikki Montañez - The Dow Chemical Company

Abstract# 25 - 2:45 PM - 30 minutes – Hibiscus - Wednesday
"Trace Metal Analysis of Ultra Pure Brine by Optical Emission Spectroscopy Coupled with a Matrix Removal Preconcentration System"
Stan Smith, Dan Jones - PerkinElmer Life and Analytical Sciences

Abstract# 81 - 3:15 PM - 30 minutes – Hibiscus - Wednesday
"High-Throughput TD-NMR Technology for Polymer and Petrochemical Products Analysis and Process Control"
Xenia Tombokan, Supriyo Ghosh - Bruker Optics Inc.

Iris

Abstract# 35 - 9:40 AM - 20 minutes – Iris - Wednesday
"Evaluation of Brine Tolerant Claims of New TOC Technology at Low Levels"
Monica Laurel and Joseph Bonadies - Dow Chemical Company

Abstract# 40 - 10:00 AM - 30 minutes – Iris - Tuesday
"The Secrets of Getting Good Bromine Index Results"
Tore Fossum - Mettler Toledo, Inc.

Abstract# 49 - 10:30 AM - 30 min – Iris - Tuesday
"Composition-based Separations of Polyolefins by Gradient Adsorption High-Temperature Liquid Chromatography"
Matthew D. Miller, A. Willem DeGroot, Bill Winniford, John W. Lyons, and Freddy Van Damme - The Dow Chemical Company

Thursday Session - October 15, 2009

Bluebonnet

Abstract # 048 - 9 a.m.-5 p.m. on Thursday October 18 – User Group Meeting - Bluebonnet
"PANalytical's Southwest Users Group Meeting"

Poster Sessions

Wednesday October 14, 2009

Moody Gardens Convention Center - Exhibit Hall

Authors of the below poster presentations have been asked to attend their poster(s) at the specified times below to discuss their work and answer any questions by attendees. Authors may post their presentations in the exhibit hall any time during exhibition hours on Tuesday, October 13th. Presentations are to remain on display until 5:00 PM on Wednesday, October 14th.

Abstract# 59 - 10:00 AM - Exhibit Hall - Wednesday
"Multi-Dimensional GC/GCMS"
Gordon McFarlane, Yves Gamachev- Analytical Flow Products

Abstract# 75 - 10:30 AM - Exhibit Hall - Wednesday
"The Use of Supercritical Fluid Chromatography in Biodiesel Analysis"
Curt M. White - TharSFC a Waters Company

Abstract# 5 - 11:00 AM - Exhibit Hall - Wednesday
"Extending the Boundaries of GC-MS with Supersonic Molecular Beams"
Aviv Amirav, Alexander B. Fialkov, Alexander Gordin and Marina Poliak - Tel Aviv University

Abstract# 30 - 11:15 AM - Poster - Exhibit Hall - Wednesday
"Elemental Analysis of Unused Lubricating Oils by Direct Excitation ED XRF - See how PETROQUANT for the S2 RANGER works!"
Alexander Seyfarth -Bruker AXS

Abstract# 34 - 11:30 AM - Exhibit Hall - Wednesday
"Pushing The Limits: Two New Tools for High Temperature, High Pressure Microwave Digestions for Trace Metals Analysis"
Rick Cousins, David Barclay PhD, Robert Lockerman - CEM Corporation

Abstract# 36 - 11:45 AM - Exhibit Hall - Wednesday
"A Flexible Direct Sample Introduction Device For Gas And Pressurized Liquid Samples"
Vincent Otten; Gerben de Jonge and Khalid Trafrasti - PAC / AC Analytical Controls

Abstract# 43 - 12:30 PM - Exhibit Hall - Wednesday
"Column Evaluations for the Analysis of Polycyclic Aromatic Hydrocarbons"
Rob Freeman, Dan DiFeo, Paul Wynne, and Peter Dawes - SGE Analytical Science

Abstract# 45 - 12:45 PM - Exhibit Hall - Wednesday
"The DHA-150 Fused Silica Column, the New Robust and Inert Solution for ASTM Method D-5501"
Barry L. Burger - Restek Corporation

Abstract# 46 - 1:00 PM - Exhibit Hall - Wednesday
"Total Chlorine in Liquified Petroleum Gas (LPG) by Microcoulometry Using the EGM II, An Easy to Use LPG/Gas Sample Introduction System"
Debbie Batt and Dr. Ben Tordoff - Thermofisher Scientific

Abstract# 51 - 1:15 PM - Exhibit Hall - Wednesday
"Inert Column Hardware for the Separation of Difficult Samples in RP-HPLC"
Rob Freeman, Dan DiFeo, Hans Jurgen Wirth, Andrew Gooley, Paul Wynne, Peter Dawes - SGE Analytical Science

Abstract# 56 - 1:30 PM - Exhibit Hall - Wednesday
"Rapid Determination of Water from 50 ppm to 80% in Oil"
Steven M. Barnett, Frank Higgins, and John Seelenbinder - A2 Technologies

Abstract# 57 - 1:45 PM - Exhibit Hall - Wednesday
"Rapid, Simple FTIR Fuel Analysis System"
Steven M. Barnett, Frank Higgins, and John Seelenbinder - A2 Technologies

Who said there was no such thing as a free lunch?

The Gulf Coast Conference would like to thank Chemplex Industries and Analytical Services,Inc. for their strong support of our annual meeting. This year the two companies have jointly sponsored a lunch for all on Tuesday in the exhibit hall from 12:00 - 1:30 PM. This level of support is of benefit to us all, so be sure ro stop by each of their booths for a good Texas size THANK YOU!

Abstracts 2009

Abstract# 1 - 10:00 AM - 20 minutes – Bluebonnet - Tuesday
"Advances and Gaps in Shelterless Process Gas Chromatographs"
Ademola Idowu and Wayne Kubala - Dow Chemical Company
Since its introduction in the 1950s, process gas chromatography has remained as one of the most powerful on-line analytical techniques available to the chemical industry. Its many uses and flexibility are well known and documented. Traditional process gas chromatographs (PGCs) generally require the use of analyzer shelters to house and protect them from harsh environmental conditions. These shelters are expensive and require significant costs for installation and long-term operation. These added costs present significant financial barriers to businesses that might otherwise benefit from the use of process gas chromatography. Benefits include increased process control efficiency, monitoring of feedstock or final product quality, and compliance with environmental mandates. This paper will discuss some of the benefits and gaps in the use of non-traditional shelterless PGCs. Paper Presentation - 20 minutes Abstract # 001

Abstract# 2 - 1:00 PM - 45 minutes – Hibiscus - Wednesday
"Advances in Modern FTIR Spectrometers and IR Microscopes"
Cam MacIsaac - Thermo Electron
This paper will discuss several applications of FT-IR Spectrometers related to Quality Control applications. It will also cover several examples of our patented Specta software, designed to de-resolve complex mixtures. The paper will then outline the advances in IR Microscopy, including a novel air cooled detector that does not require Liquid Nitrogen. Paper Presentation - 45 minutes Abstract # 002

Abstract# 3 - 11:00 AM - 30 minutes – Daffodil - Wednesday
"Analysis of Gases and Volatiles using the New Range of Bonded PLOT columns: Extending Stability of PLOT Columns and Revisiting the use of Metal PLOT Columns."
Jaap de Zeeuw, Rick Morehead, Jan Pijpelink, Tom Vezza and Barry Burger - Restek Corporation
PLOT columns are widely used in many petrochemical applications. The main advantages are, that PLOT columns are highly selective and analysis temperatures can be set much higher compared with liquid type stationary phases. Challenges have always been to stabilize the adsorption layer in PLOT columns, especially for porous polymers. Restek successfully stabilized porous polymers, alumina and molsieve adsorbents and deposited these layers in fused silica and MXT (metal) capillary columns. Columns show high capacity for volatiles as well as high inertness which improves impurity analysis. Additionally, adsorbent layers are very stable, reducing particle elution and provide excellent column to column reproducibility. Columns were made on 0.53-0.18mm capillary tubing showing the flexibility of the PLOT coating techniques. Several applications and limitations of this new generation PLOT columns will be discussed. Paper Presentatin - 30 minutes Abstract # 003

Abstract# 4 - 11:15 AM - 20 minutes - Floral Hall A - Wednesday
"Analysis of Hydrogen Sulfide and Mercaptan in Petroleum Products"
Tore Fossum, Chris Hynes - Mettler Toledo, Inc.
An optimized procedure is presented for analyzing sulfide and mercaptan in petroleum products following UOP 163 and ASTM D3227 using a Mettler Toledo T70 Excellence Titrator. The analysis of mercaptans and sulfides by titration can be problematic because it is not always known ahead of time if sulfide or mercaptan or both will be found. Sulfide typically shows a very strongly electronegative potential at both starting potential and inflection point. Mercaptans typically yield an inflection which is much higher. By selecting potential ranges for each, the titrator can reliably detect the different species present, including free sulfur, and correctly calculate the content of sulfide and mercaptan. Paper Presentation - 20 minutes Abstract # 004

Abstract# 5 - 11:00 AM - Exhibit Hall - Wednesday
"Extending the Boundaries of GC-MS with Supersonic Molecular Beams"
Aviv Amirav, Alexander B. Fialkov, Alexander Gordin and Marina Poliak - Tel Aviv University
Supersonic GC-MS (GC-MS with Supersonic Molecular Beams (SMB)) is based on GC and MS interface with SMB and electron ionization of sample compounds while they are cold in a contact-free fly-through ion source. Supersonic GC-MS is characterized by the provision of enhanced molecular ions and isomer/structural MS information for improved identification, extended range of compounds amenable for analysis, improved sensitivity for difficult to analyze compounds and provision of an effective fast GC-MS. A new Supersonic GC-MS system based on the combination of SMB with the Agilent 5975 will be described. Improved analysis of diverse range of compounds will be demonstrated. Poster Presentation Abstract # 005

Abstract# 6 - 11:45 AM - 20 minutes - Floral Hall A - Wednesday
"Excimer UV Fluorescence"
Franek Olstowski - ATOM Instrument Corp.
Specifically developed for analysis of sulfur dioxide, Excimer UV Fluorescence (EUVF) represents a significant advancement in the detection and measurement of total sulfur in accordance with ASTM-D5453. This patented technology yields superior performance characteristics that exceed those obtained with other excitation sources, including increased sensitivity, increased stability, reduced nitrogen interference and increased linearity at higher concentrations. Statistical quality control data recently provided by a major oil refinery covering a 15-month evaluation period will be presented demonstrating unprecedented precision and long-term stability of analytical results with a total sulfur instrument utilizing this method. Paper Presentation - 20 minutes Abstract # 006

Abstract# 7 - 9:00 AM - 3 hours – Daffodil - Tuesday
"Basic Titration Principles"
Tore Fossum - Mettler Toledo, Inc.
Basic training course for users of automatic titrators. We present the theory of titration, theory of electrodes, calibration and testing of electrodes, standardization and troubleshooting. Advanced topics will be presented in the afternoon session. Training Course - 2 half day sessions Abstract # 007

Abstract# 8 - 1:20 PM - 40 minutes – Hibiscus - Tuesday
"Green Gasoline Volatility Prediction"
Walter Spieksma - Envantage Inc.
Today, ethanol is added to green gasoline to reduce our dependence on finite energy resources and reduce CO2 emission. Green gasoline Reid Vapor Pressure rises by azeotropy, while maximum RVP specifications exist. DHAblender® uses gas chromatographic (GC) analyses of blend stock and the blend ratio to predict gasoline properties. Binary phase diagrams will be compared with experimental literature data. Non-ideal behavior of the 100+ component mixtures will be shown. Results of the field test performed this summer in an American gasoline blending facility will be presented. Paper Presentation - 45 minutes Abstract # 008

Abstract# 9 - 10:30 AM - 45 minutes – Hibiscus - Tuesday
"Improved Hydrocarbon Analysis with GC-MS with Supersonic Molecular Beams"
Aviv Amirav, Alexander B. Fialkov, Alexander Gordin and Marina Poliak - Tel Aviv University
Supersonic GC-MS (GC-MS with Supersonic Molecular Beams (SMB)) is based on GC and MS interface with SMB and on the electron ionization of sample compounds while they are cold in a contact-free fly-through ion source. The Supersonic GC-MS is ideally suitable for improved (and faster) hydrocarbon analysis including of challenging mixtures through the provision of enhanced molecular ions to all hydrocarbons, combined with isomer and structural MS effects. It further enables the analysis of low volatility large hydrocarbons, all with molecular ions. The presentation will demonstrate improved analysis of jet fuel, diesel fuel, biodiesel, oils, waxes and diverse geochemical samples. Paper Presentation - 45 minutes Abstract # 009

Abstract# 10 - 10:30 AM - 30 minutes – Daffodil - Wednesday
"Latest Developments in High Temperature Analysis: Inert Rxi-Columns that go to 400C"
Jaap de zeeuw, Jan Pijpelink, Valeri Strom, Barry Burger and Roy Lautamo - Restek Corporation
Stationary phase stabilization has been an ongoing theme in capillary GC. Many low-bleed stationary phases have been developed which show besides low-bleed also a high inertness. With the availability of more stable outside coatings like metal and high temperature polyimide, the application of GC can be extended to approx 380-400C. Stationary phases can be designed to withstand more thermal stress, but essential is to use thinnest possible films to elute components at the lowest possible temperatures. In this presentation we will discuss the application and limitation of high temperature phases types Rxi-5HT and Rxi-1HTas well as new developments for improving stability of

100% PDMS for high temperature simdist applications. Paper Presentation - 30 minutes Abstract # 010

Abstract# 11 - 11:20 AM - 20 minutes – Bluebonnet - Tuesday
"Meeting the Challenges of Biofuels Blend Measurements with Portable, Easy-to-Use Analyzers"
Sandra Rintoul - Wilks Enterprise, Inc.
Portable fixed-filter infrared analyzers offer a quick on-site method for measuring percent ethanol in gasoline or biodiesel in diesel. Tests for ethanol blend were performed on over 15 different types of gasoline; including RBob, PBob, premium and regular. The analysis was then taken on-site to 7 different terminals from 6 different companies. Results showed an accuracy of +/-0.25% ethanol. Infrared analyzers are also used for on-site testing to determine the accuracy of blending for biodiesel as well as being currently in use by several state Weights and Measures Agencies to measure blend ratio at the pump. The blend analysis takes less than one minute and can be done on-site by non-technically trained personnel. Paper Presentation - 20 minutes Abstract # 011

Abstract# 12 - 2:15 PM - 30 minutes – Hibiscus - Wednesday
"NMR Study of Isolated 2,1-inverse Insertion in Isotactic Polypropylene"
Zhe Zhou1, James C. Stevens, Jerzy Klosin, Rainer Kümmerle, Xiaohua Qiu, David Redwine, Rongjuan Cong, Angela Taha, Jeff Mason, Bill Winniford, Paul Chauvel and Nikki Montañez - The Dow Chemical Company
Understanding the regio- and stereo-errors of polymers prepared with new catalysts is of high importance. 13C NMR has been the primary tool to obtain detailed polymer assignments, however, its sensitivity has been a longstanding challenge, especially when using 2D INADEQUATE. Recently, a high temperature 10 mm cryoprobe was developed and that resulted in significant sensitivity increase. In this contribution, we present the results of 2D INADEQUATE, HETCOR, HOESY obtained using this cryoprobe and 13C chemical shift prediction to assign the 13C NMR of 2,1-inverse insertion in iPP made with two new catalysts. This is the first unambiguous and direct experimental assignment of this kind of regio-errors. Full paper was published at Macromolecules 2009, 42, 2291. Paper Presentation - 30 minutes Abstract # 012

Abstract# 13 – 1:45 pm - 20 minutes – Hibiscus - Wednesday
"Quantification of Sulphur and Nitrogen in Soil Employing Mid IR studies by Diffuse Reflectance Fourier Transform Infrared Spectroscopy"
Manas Kanti Deb, Devsharan Verma, Santosh Kumar Verma - Pt. Ravishankar Shukla University
Soil fertility is conventionally evaluated by soil properties such as C, N, and P contents. Evaluation of soil fertility is now becoming a routine work for soil management and crop production. However, laboratory-analysis based determination of soil properties is time and cost consuming, which is not suitable for precision agriculture. Fourier transform infrared (FTIR) spectroscopic imaging is a relatively new method that has received great attention as a new field of analytical chemistry. The greatest benefit of this technique lies in the high molecular sensitivity combined with a spatial resolution down to a few micrometers. In the present work diffuse reflectance combined with infrared spectroscopy (DRS-FTIR)has been employed to quantitatively estimate multiatomic inorganic ionic species in soil. Paper Presentation - 20 minutes Abstract # 013

Abstract# 14 - 2:30 - 20 minutes – Hibiscus - Tuesday
"SIMDIST Analysis Of Petroleum Distillates And Biofuels By Ultra Fast GC"
Aaron Mendez and Vincent Otten - PAC
High throughput analysis in gas chromatography should mean fast cycle times and fast results without increasing the uncertainties and affecting negatively, the limit of detection and the precision of the measurement. This can be accomplished by utilizing a new GC, in which the column is heated directly by a Microwave Energy in a fast and tightly controlled way. The applications discussed in this work utilize a specially coated PDMS 0.32 mm id capillary column, a fast heating TPI Inlet and a conventional FID detector. Heating and cooling rates of up to 350 oC/min had been applied to simulated distillation analysis of diesels and FAME biodiesel formulations following procedures described in the ASTM D2887 and D7213 standard methods. These methods were chosen in view of the fact that the determination of the boiling range distribution by Gas Chromatography is one of the most used means of characterizing fuel samples. The cycle time are reported to be less than 3 min for D2887. Experiments are fast with increased performance in terms of repeatability and Reproducibility. Results show clearly the improvement of existing methods precision parameters. Overall results indicate that this methodology is fast, reliable and fully compliant with ASTM simulated distillation methods conditions for column resolution, skewness of the peaks and boiling point distribution of reference standard materials. Additionally several attempts have been made to correlate these distributions with physical atmospheric distillations. Paper Presentation - 20 minutes Abstract # 014

Abstract# 15 - 10:00 AM - 20 min – Bluebonnet - Wednesday
"Single Pellet Analysis of Additives in Polyolefins using X-ray Fluorescence"
Donald W. Burns - Dow Chemical
X-ray fluorescence (XRF) analysis of polyolefins is an established means for measuring additives containing certain elements (Si, P, S, Ca and Zn) and usually requires several grams of polymer for analysis. The ability to measure additives in individual extruded polymer pellets would provide a valuable diagnostic tool for understanding additive dispersion and evaluating product quality and performance. The sensitivity, precision and linearity of single pellet analysis were evaluated using characterized polymer standards. Sample preparation and instrument conditions will be discussed. Practical examples of single polymer pellet analysis will be presented. Paper Presentation - 20 minutes Abstract # 015

Abstract# 16 - 1:00 PM - 3 hours – Daffodil - Tuesday
"Titration Training Course" - Second Session
Tore Fossum - Mettler Toledo, Inc.
Second part of basic training course for users of automatic titrators. The operation and use of the Mettler Toledo Titration Excellence instruments T50, T70 and T90 will be explained. We will discuss setting up and optimizing titration methods including titration control parameters. Result calculations are done according to the standard rules of algebra, and formulas for percent, parts per million and molarity will be explained, as well as how to use blanks and do back titrations. Some common types of analyses will be presented, including petroleum acid numbers and base numbers. If time permits, other applications can be discussed at the request of the participants. Training Course - 3 hours Abstract # 016

Abstract# 17 – 8:45 AM - 60 minutes – Daffodil - Wednesday
"Troubleshooting Petrochemical Applications"
Jaap de Zeeuw - Restek Corporation
The chromatogram is like a fingerprint: looking at the retention times, the peak shape, the area response will tell us a lot about possible problems that we have to deal with. In this seminar we will discuss several main issues that people may meet in the lab work. A lot of practical experiences and tips is shared to help you solve your challenges in your daily work. Seminar Presentation - 60 minutes Abstract # 017

Abstract# 18 – 2:50 PM - 20 minutes – Hibiscus - Tuesday
"Rapid DHA Analysis Using Hydrogen Carrier and Enhanced Cool-Down without Cryogen"
Terrance Osenbach, John Irion, and Massimo Santoro - PerkinElmer
A typical Detailed Hydrocarbon Analysis (DHA) involves a full chromatographic separation of a highly complex petrochemical sample matrix. This method requires the separating power of long narrow-bore columns that lead to chromatograms lasting nearly 3 hours. An approach has been taken to reduce the analysis time of DHA using hydrogen as carrier gas, optimizing the oven temperature program and using a novel GC oven design to enhance oven cooling without using any cryogenic liquid. This method significantly reduces the total run time increasing productivity and throughput providing an economical and greener solution. Paper Presentation - 20 minutes Abstract # 018

Abstract# 19 - 1:30 PM - 30 min – Bluebonnet - Wednesday
"Thermo Petro WDXRF- New Design Solutions for Advanced Analysis in Todays Economy"
Al Martin - Thermo Fisher Scientific
A major challenge for petroleum and polymer laboratories in todays economy is achieving best-in-class analytical results on increasingly demanding applications while reducing analytical expenses. Traditional high-power WDXRF is a comprehensive yet often times expensive method for determining ultra-low sulfur content in light and heavy fuels, controlling lubricant blending

quality, quantifying catalyst fines and light element traces such as chlorine in polymers, and others. Similarly reliable analytical results are achievable with significantly lower cost of ownership due to intelligent XRF instrument and software design solutions from Thermo Fisher Scientific. Analytical results for various materials, including petrochemical and polymer applications, are discussed in relation to instrument design. Through the use of interchangeable components such as goniometers, sample changers, sequential/simultaneous, power generation and lower power high-efficiency optical coupling as well as economical software solutions such as the world-class UniQuant standardless and PetroilQuant pre-calibration software packages Thermo Fisher Scientific offers an answer to todays challenges. Paper Presentation - 30 minutes Abstract # 019

Abstract# 20 - 9:40 AM - 20 minutes - Floral Hall A - Wednesday
"Care and Feeding of Liquid Phase Calibration Mixtures"
Daniel Bartel, David Gannon - Airgas Specialty Gas
This will be a discussion the methods used to calculate, prepare and fill liquid phase calibration mixtures. The challenges in the use and storage of these and how to maintain your liquid phase mixtures to assure quality calibrations. Paper Presentation - 20 minutes Abstract # 020

Abstract# 21 – 10:50 AM - 30 minutes – Bluebonnet - Tuesday
"Temporary Online FTIR Spectroscopy for Process Troubleshooting"
Serena Stephenson, Roger Gagnon, Lamar Dewald, Wendy Flory, JD Tate - The Dow Chemical Company
Within chemical processes stream compositions are often known only by calculations from models or the occasional grab sample analysis. However, in some cases, such as when minor stream components cause system fouling and plant upsets, direct and continuous stream composition analysis is required for troubleshooting purposes. Here we will present the use of in-situ high-resolution, high-sensitivity, gas-phase FTIR spectroscopy for analysis of minor components in an ethylene stream. These minor components contribute to plant fouling and down-time, so the desire is to minimize their presence. Continuous monitoring during process parameter variation provides information necessary for optimization. Paper Presentation - 30 minutes Abstract # 021

Abstract# 22 - 9:30 AM - 30 minutes – Hibiscus - Wednesday
"A Revolution in Chromatography Software"
Jawad Pashmi, Matthew Neely - Dionex Corporation
This presentation will introduce Chromeleon® 7 as the next-generation chromatography data system from Dionex. This presentation will show how a new chromatography data system provides rich functionality and high usability for a diverse range of users whose needs vary widely. Usability principles applied throughout the design will be discussed, and examples will illustrate how usability-focused design can not only help increase productivity, but also make the users experience much more enjoyable. Using Operational Simplicity" as its guiding design principle, Chromeleon 7 takes you from samples to results in the shortest time possible. It provides smooth, intuitive instrument control and two major new processing featuresthe Cobra" peak detection algorithm for fast accurate peak detection, and the SmartPeaks" Integration Assistant for easy handling of unresolved peaks. It also offers eWorkflows, a new tool that automates all chromatography workflows via the simplest possible user interface. Please join us as we discuss this exciting new software to control your IC, GC, and HPLC data streams. Paper Presentation - 30 minutes Abstract # 022

Abstract# 23 - 10:00 AM - 60 minutes – Hibiscus - Wednesday
"Addressing the Sample Preparation Bottleneck: New Solutions for Ion Chromatography"
Kirk Chassaniol - Dionex Corporation
Recent advances in Ion Chromatography (IC) analytical methods include electrolytic eluent generation, purification, and suppression resulting in the reduction of time and labor required to operate an ion chromatograph. These innovations have contributed to the overall productivity of the analyst using IC methods over the past several years. However, sample preparation including sample dilution, filtration, matrix elimination, and solid-phase extraction (SPE) have been employed in various manual or off-line procedures. New advances in IC hardware and software employ new in-line methods that eliminate many of the manual steps necessary for IC separations. In this presentation, we present instruments with additional valves and sample preparation options including matrix elimination and electrolytic water purification. We will also present a new feature in Dionex Chromeleon software that executes automatic sample dilution and sample rerun based on peak amounts outside of the working range of the calibration. Learn how to gain significant cost savings by reducing IC column dimensions and regeneration of the eluent Paper Presentation - 60 minutes Abstract # 023

Abstract# 24 - 11:00 AM - 60 minutes – Hibiscus - Wednesday
"Dionex IC/HPLC Users Group Panel Discussion"
Lisa Lenehan, Matthew Neely, Chuck Costanza, Kirk Chassaniol - Dionex Corporation
A question & answer discussion session led by a panel of Dionex experts. Open to all conference attendees with an interest in IC &/or HPLC. Specific topics for discussion prior to the meeting are welcome by sending an email to: lisa.lenehan@dionex.com. User Group - 60 minutes Abstract # 024

Abstract# 25 - 2:45 PM - 30 minutes – Hibiscus - Wednesday
"Trace Metal Analysis of Ultra Pure Brine by Optical Emission Spectroscopy Coupled with a Matrix Removal Preconcentration System"
Stan Smith, Dan Jones - PerkinElmer Life and Analytical Sciences
Membrane cell electrolysis is used in the production Sodium Hydroxide and Chlorine gas from Ultra Pure Brines. It is the most common Chlor-alkali process. The process involves an anode and a cathode that are separated by an ion permeable membrane. Brine contaminants such as Mg, Fe, Mn, Ca, Al, Ba and Sr can poison the membrane cell rendering the process inefficient or not functional. Improved accuracy and detection limits for these contaminants could lead to an improvement in production and overall plant process control, as well as extending the life of the membrane cell. Paper Presentation - 30 minutes Abstract # 025

Abstract# 26 - 3:10 PM - 30 minutes – Hibiscus - Tuesday
"Benefits of a New Micro-Channel Wafer Technology in Traditional Petrochemical Applications"
Andrew Tipler, Leeman Bennington, Heidi Grecsek - PerkinElmer
Many petrochemical laboratories encounter difficult GC separations that must be performed quickly. This paper describes novel technology that uses laser fabricated wafers with internal microchannels to switch or split a sample stream as it enters or exits capillary GC columns. This approach offers many advantages over traditional rotary valves and is ideally suited for use with modern high resolution capillary columns. This presentation will describe the technology and give examples of its application and performance which will include using heartcutting to determine low level MTBE and other oxygenates in gasoline and using backflushing to monitor volatile components in crude oil. Paper Presentation - 30 minutes Abstract # 026

Abstract# 27 - 10:45 AM - 20 minutes - Floral Hall A
"Analytical Advances For The Simultaneous Boiling Range Distribution Of Hydrocarbons, Sulfur And Nitrogen By GC And Chemiluminescence"
Vincent Otten; Erwin B. Barendregt and Rik Suijker - PAC / AC Analytical Controls
Heterocompounds of Sulfur and Nitrogen although present at low concentrations in hydrocarbon streams play an important role in the oil industry refining and upgrading processes. The quality specifications of final products are more stringent every day not only from the environmental standpoint but also due to their toxicity and detrimental effects on catalysts. NOx is well known to form explosive compounds with dienes especially in cold boxes of ethylene and olefins plants. Total Sulfur and Nitrogen contents are generally determined by combustion methods followed by UV-fluorescence or chemiluminescence detection. However in many cases the total concentration often does not contribute to optimize the refining operations in part because of the existence of refractory chemical species like the 4,6 di-alkyl DiBenzoThiohenes. Gas Chromatography Simulated Distillation equipped with specific chemiluminescence detectors for Sulfur and Nitrogen, offers the possibility of characterizing these species in a more depth providing a higher degree of speciation. The systems simultaneously produce three channels of data: The hydrocarbon boiling point distributions, the Sulfur trace and the Nitrogen trace simdis distribution. A series of advances of hardware and software nature have been introduced to our GC-FID/7090N/S chemiluminescence system to improve the quality of the data in terms of sensitivity, speed of analysis and robustness of the system as a whole specially for the D2887, D6352 and D7500 boiling range scope. Paper Presentation - 20 minutes Abstract # 027

Abstract# 28 - 1:00 PM - 3 hours – Bluebonnet - Tuesday
"Direct Multielement Analysis of Petrochemicals and Fuels By XRF! A Primer on X-Ray Spectrometry for EDX and WDX"
Alexander Seyfarth (BRUKER AXS) Al Martin (THERMO FISHER)
This training class will introduce you to XRF spectrometry and its different techniques. Learn how you analyze fuels, lubes and other petrochemicals with minimal sample preparation directly for all elements from Sodium (Na) to Uranium (U). We will explain the principles, detail sample preparation basics, cover and compare the energy dispersive (ED) and wavelength dispersive (WD) systems. Training Course - 3 hours Abstract # 028

Abstract# 29 - 11:00 AM - 30 minutes – Bluebonnet - Wednesday
"T XRF How to Analyze Small Samples for Elements in PPM,PPB Range Without Digestion!"
Michael Rider, Alexander Seyfarth - Bruker AXS Inc.
Chemical T XRF is the application of T XRF, pioneered in the semiconductor field, to new chemical applications. With the advent of commercial benchtop instrumentation it is now possible to analyze % to ppb levels using nano grams of sample with XRF without having to establish calibrations using matrix matched standards! Learn how You can analyze waste water, nanomaterials, plants, food or chemicals with T XRF. Paper Presentation - 30 minutes Abstract # 029

Abstract# 30 - 11:15 AM - Poster - Exhibit Hall - Wednesday
"Elemental Analysis of Unused Lubricating Oils by Direct Excitation ED XRF - See how PETROQUANT for the S2 RANGER works!"
Alexander Seyfarth -Bruker AXS
Poster will show results from unused Lube oils based on ASTM D 6481 using the turn key PETRO QUANT setup for the S2 RANGER EDX system. Poster Presentation Abstract # 030

Abstract# 31 - 3:00PM - 45 minutes – Bluebonnet - Wednesday
"ULS Sulfur Using WDXRF - How You can Succeed with D2622!"
Alexander Seyfarth Bruker AXS - Bruker AXS
Are you using D2622, Do you need to measure ULS in Diesel, Fuels? The Seminar will show you how to improove your results and follow best practice according to D7343 as well as how to achieve good results with D2622. We will cover calibration standards, sample preparation, measurement and instrumentation as well as method validation and maintenance. Paper Presentation - 45 minutes Abstract # 031

Abstract# 32 - 1:00 PM - 60 minutes - Floral Hall A - Wednesday
"Outsourcing Quality as a Cost Reduction Strategy"
Gretchen McAuliffe - EM2 Solutions Inc
With the economic recession hitting almost every company's financial statements, managers have had to look for innovative ways to reduce costs. Unfortunately, for many companies, this has included workforce reduction. Even if companies have not cut jobs, then HR departments may have implemented hiring freezes. Even with reduced staff, the work must be done. Sometimes, remaining employees are forced to accept additional responsibilities, some outside of their scope of expertise, and may have to work additional hours. Or, in some cases, activities may not get done and the quality system starts to falter. Additionally, for some laboratories, full-time quality assurance support may not be justifiable; however, it is difficult to staff a part-time position with an experienced quality assurance professional. Managers are seeking more ways to maintain the same level of quality standard with limited resources. We will present an alternative strategy to managing a quality system. This session will include a case study of how one company has successfully managed quality assurance activities with contract resources. Discussions will consist of the benefits and challenges encountered over a three year period. Seminar Presentation - 60 minutes Abstract # 032

Abstract# 33 - 2:00 PM - 60 minutes - Floral Hall A - Wednesday
"Standard Operating Procedures - The Backbone of the Analytical Laboratory"
Gretchen McAuliffe - EM2 Solutions Inc
Standard Operating Procedures (SOPs) they are the backbone of the analytical laboratory. Everyone needs them! Employees want instruction on day to day activities. Managers want all employees to perform tasks in the same manner. And, auditors want to review them to learn how the laboratory conducts its operations. But, what do they need to say? What activities do they cover? How detailed must they be? It is evident that a laboratory should have written procedures for method performance, but what other activities need to be in a written procedures? This session will review Standard Operating Procedures required for a typical analytical testing laboratory quality system. Discussion will include content, format and responsibilities. Attendees will receive a detailed list of typical laboratory Standard Operating Procedures. Seminar Presentation - 60 minutes Abstract # 033

Abstract# 34 - 11:30 AM - Exhibit Hall - Wednesday
"Pushing The Limits: Two New Tools for High Temperature, High Pressure Microwave Digestions for Trace Metals Analysis"
Rick Cousins, David Barclay PhD, Robert Lockerman - CEM Corporation
Sample preparation for trace metals analysis continues to be a challenge for heavy organics and refractory materials. Much headway has been made previously on easy to digest environmental samples and tissues but more difficult matrices have required using vessels that can be difficult to assemble and prone to leaks. We will introduce two new vessel types which allow for the extreme conditions required while at the same time providing users easy assembly and leak free operation. We will provide information on these two new vessels and present data on a wide variety of materials including oils, plastics, oxides and ceramics. Poster Presentation Abstract # 034

Abstract# 35 - 9:40 AM - 20 minutes – Iris - Wednesday
"Evaluation of Brine Tolerant Claims of New TOC Technology at Low Levels"
Monica Laurel and Joseph Bonadies - DOW Chemical
An evaluation of GE Sievers InnovOx was performed over a 2 year period to determine if the claims of brine tolerance and low level detection of TOC could be simultaneously supported in a production lab setting. Historically thermal combustion technology suffered from catastrophic failure from collection of significant brine solids in furnace and valves. Persulfate oxidation was limited by chloride to chlorine conversion consuming oxidizing power and low overall oxidation efficiency. New supercritical fluid oxidation conditions in the InnovOx technology allows chlorine to be a active oxidant and achieve good oxidation to CO2. The constant Wet state of the sample allows all brine to be flushed to waste and not impact instrument performance. Thousand of injections of saturated brine have been tolerated with quantitative results under 5 ppm, with no drift, being now a routine analysis versus high maintenance. Paper Presentation - 20 minutes Abstract # 035

Abstract# 36 - 11:45 AM - Exhibit Hall - Wednesday
"A Flexible Direct Sample Introduction Device For Gas And Pressurized Liquid Samples"
Vincent Otten; Gerben de Jonge and Khalid Trafrasti - PAC / AC Analytical Controls
Sampling and analyzing gaseous or pressurized hydrocarbon liquids constitute a challenge due to the difficulties associated with injecting every time a representative aliquot of the sample. The high volatility of these samples and the high boiling range of their components pose a serious threat on the integrity of the matrices, discriminating compounds of either low or high ends. We will describe a device that allows for a highly repeatable and accurate direct injection of these types of samples. The system is simple very functional as it can be easily configured and upgraded. It utilizes deactivated materials, has short analytical path and also insignificant dead volumes. Results obtained on repetitive large number of injections for low and high pressure samples of up to 5000 psi show an excellent repeatability with values typically lying well below the 1% RSD. Poster Presentation Abstract # 036

Abstract# 37 - 10:00 - 30 minutes – Hibiscus - Tuesday
"Application of a Novel Atmospheric Pressure GCMS Interface in Environmental and Food Safety Analysis"
Jordan Blodgett, Doug Stevens, Anthony Newton - Waters Corp.
An atmospheric pressure ion source compatible with tandem quadrupole and QTof LC/MS/MS instruments allows an easy switch between LC and GC for the analysis of high and low molecular weight compounds as well as polar and non-polar analytes across a wide range of volatility. The APGC ionization process is less energetic than EI leading to significant enhancement of molecular ions. Data is presented for a range of compounds where molecular ion confirmation would be difficult to obtain using EI. Comparisons are made between EI and APGC. Sensitivity is evaluated using solvent standards and spiked matrix extracts. Paper Presentation - 39 minutes Abstract # 037

Abstract# 38 - 3:45 PM - 30 minutes – Hibiscus - Tuesday

"The Ultra Fast Determination of Biogas Composition by Micro-GC"
Coen Duvekot, Hans van den Heuvel - Varian Inc.
Biogas is produced from renewable sources like biomass, agriculture, sewage and landfill, by the biological breakdown of organic matter. This biogas can be used as biofuel or mixed with natural gas. The quality of the biogas however needs to comply with regualtions and specifications. The composition of biogas is usually: methane (50 75%), carbondioxide (25 50%), nitrogen (0 10%), oxygen (0 2%), hydrogensulfide (0 - 3%) and hydrogen (0 1%). The Varian CP-4900 micro-GC is perfectly suited for the fast analysis of gases. However the specific composition of biogas and especially the presence of large amounts of moisture, requires some precautions. This paper outlines the ultra fast analysis of biogas by micro-GC, the possibilities and limitations. Paper Presentation - 30 minutes Abstract # 038

Abstract# 39 – 4:15 PM - 30 minutes – Hibiscus - Tuesday
"Determination of Low Level Impurities in Ethylene and Propylene by Gas Chromatography"
Coen Duvekot and James Pachlhofer - Varian Inc.
New manufacturing processes have resulted in lower specifications for determination of impurities in Ethylene and Propylene streams. Impurities like CO, CO2, H2, O2, N2, Acetylenes, Propadiene and other hydrocarbons require low ppm to sometimes low ppb detection limits. Furthermore there is interest in determination of cylcopropane in the different matrices. This typically requires multiple, dedicated GC's. Moreover, traditional TCD, lacking sensitivity, requires the use of large sample loops, do not meet new analytical requirements. Finally there is the matrix effect, resulting in different configurations for Ethylene and Propylene. This paper will outline the possibilities and challenges of low level determination of impurities in Ethylene and Propylene. Paper Presentation - 30 minutes Abstract # 039

Abstract# 40 - 10:00 AM - 30 minutes – Iris - Tuesday
"The Secrets of Getting Good Bromine Index Results"
Tore Fossum - Mettler Toledo, Inc.
Bromine index has long been difficult to get repeatable accurate results. The conductivity and bromide concentration changes with the volume of titrant, causing changes in the correct end point potentials. By adding aqueous potassium bromide, the conductivity and concentration of bromide are stabilized, leading to more consistent end points and repeatable results at low bromine index values. Coulometric and volumetric techniques are compared. Paper Presentation - 30 minutes Abstract # 040

Abstract# 41 - 9:00 AM - 30 minutes – Hibiscus - Wednesday
"Dionex HPLC Column Overview"
Jawad Pashmi, Matthew Neely = Dionex Corporation
Dionex is pleased to present an overview of our current HPLC column technology. The Acclaim family of products includes traditional C8 and C18 packed bed columns, but also many specialty columns with unique selectivities. In this presentation we will discuss columns such as the mixed mode columns that combine both ion exchange and reversed phase characteristics. The Acclaim Trinity column is a tri-modal column that has anion, cation, and RP retention mechanisms. Please join us for a discussion on these columns as well as other Dionex technologies that provide better chromatographic performance. Paper Presentation - 30 minutes Abstract # 041

Abstract# 42 - 4:00 PM - 30 minutes – Bluebonnet - Tuesday
"Complying with EPA Method Modifications 1664A Utilizing Automated SPE"
Robert S Johnson - Horizon Technology, Inc.
On January 16, 2009, the US EPA released information regarding Modifications to Method 1664A. Laboratories that utilize automated extraction systems and products need to be aware of these modifications, their implications, and the options available to ensure their laboratory is in compliance with these modifications. This paper presents a discussion regarding automated SPE and alternative extraction and concentration techniques that are allowed, provided that all performance specifications are met for EPA Method 1664A. Paper Presentation - 30 minutes Abstract # 042

Abstract# 43 - 12:30 PM - Exhibit Hall - Wednesday
"Column Evaluations for the Analysis of Polycyclic Aromatic Hydrocarbons"
Rob Freeman, Dan DiFeo, Paul Wynne, and Peter Dawes - SGE Analytical Science
The USEPA currently lists and mandates the determination of sixteen priority pollutant PAHs. GC techniques are common for these analytes and are often coupled with MS. When GCMS is employed it is typically used in SIM mode with a 5%diphenyl/95%dimethyl polysiloxane stationary phase. However, many analyses are being expanded beyond just these sixteen compounds. Compounds such as benzo(j)fluoranthene, dibenz(a,h)acridine and dibenzo(a,e)pyrene are being added for monitoring purposes or due to increasing regulatory requirements but are difficult to analyze via conventional test conditions. For instance, benzo(j)fluoranthene co-elutes with benzo(b) fluoranthene on a 5-phase, therefore its determination must be reported as a combined sum of isomers. In an attempt to achieve greater separation of these isomers we chose to investigate the potential of several commercially available stationary phases. The goal is to evaluate and optimize these stationary phases for the analysis of these extended PAH scans. Poster Presentation Abstract # 043

Abstract# 44 - 4:30 PM - 30 minutes – Bluebonnet - Tuesday
"Evaluation of a New Technique in Miniaturized Solid Phase Extraction"
Rob Freeman, Dan DiFeo, Paul Wynne, and Peter Dawes - SGE Analytical Science
Solid phase extraction (SPE) is a very popular method of sample preparation. Conventional SPE is performed by passing a liquid sample across a sorbent bed to retain analytes of interest. Once bound to the adsorbent material, the sample can be further concentrated or washed to eliminate interferences. Although, conventional SPE has several advantages over liquid-liquid extractions, namely time and solvent savings, SPE methods can still be tedious and time consuming when performed manually. Also, sample prep as a whole remains a limiting factor in sample throughput in the modern laboratory. Micro Extraction by Packed Sorbent (MEPS) is a new development in the field of SPE. The MEPS technology consists of a modified removable needle syringe and a needle assembly (Barrel In Needle) that contains the SPE sorbent material. MEPS performs the same function as SPE, namely the purification or speciation of samples, but with some significant improvements. MEPS works with much smaller samples sizes than conventional SPE. Due to the smaller sample sizes, MEPS significantly reduces the volume of solvents needed, from milliliters to microliters, and ultimately the amount of waste product that is generated. Also, the solvent eluant which contains the sample extract is often compatible with common GC or LC injection volumes and therefore can be introduced directly into the instrument for sample analysis. Finally, since the MEPS technology is syringe based, it is compatible with many common autosamplers, thus the extraction procedure can be fully automated which creates a seamless on-line technique that reduces sample processing time and the need for operator intervention. In this study, we will show that existing conventional SPE methods can be converted to a MEPS procedure and automated using an X-Y-Z robotic autosampler. Examples of a routine SPE method, converted to MEPS, for the analysis of PAHs will be demonstrated. Paper Presentation - 30 minutes Abstract # 044

Abstract# 45 - 12:45 PM - Exhibit Hall - Wednesday
"The DHA-150 Fused Silica Column, the New Robust and Inert Solution for ASTM Method D-5501"
Barry L. Burger - Restek Corporation
Resteks new DHA-150 fused silica column is the newest addition to its petroleum GC column line. The DHA-150 column is a 150 meter x 0.25mm id x 1.0um df fused silica column specifically engineered for the DHA of gasoline, and also natural gas and LPG at above ambient temperatures. The new DHA-150 is suitable for use in ASTM method D 5501 for the determination of the ethanol content in denatured ethanol fuel. The column can be used to determine ethanol content in the range of 20 99% and the methanol content in the range of 0.1% 0.6%.exhibiting excellent linearity. Both the ethanol and methanol peak asymmetry is unsurpassed, resulting in accurate quantification. The poster presentation will demonstrate the robustness and inertness of the new DHA-150 fused silica column. Poster Presentation Abstract # 045

Abstract# 46 - 1:00 PM - Exhibit Hall - Wednesday
"Total Chlorine in Liquified Petroleum Gas (LPG) by Microcoulometry Using the EGM II, An Easy to Use LPG/Gas Sample Introduction System" -
Debbie Batt and Dr. Ben Tordoff - Thermofisher Scientific
Chlorine is a well known contaminant in refinery products which is not naturally present in crude oil. It arises from external sources such as salts in crude feedstocks or from chemicals and catalysts used within the refining processes. It can be carried into refinery streams such as petroleum gases, naphtha,

kerosine etc by carry over during distillation or from the catalysts used during cracking or reforming processes. Chlorine is easily hydrolysed causing corrosion either within the refinery itself or downstream in the distribution and storage chain. This paper looks at a quick, simple technique for introducing LPG into a 3000 series instrument for rapid measurement of total chlorine. Poster Presentation Abstract # 046

Abstract# 47 - 11:30 AM - 20 min – Bluebonnet - Wednesday
"Advances in EDXRF for the Analysis of Lube Oils and Wastewater"
Scott Fess - Applied Rigaku Technologies, Inc.
Advances in EDXRF analytical techniques allow for the analysis of elements in lube oil and wastewater using a new fundamental parameters paradigm. The FP program incorporates new spectral fitting and matrix modeling algorithms for calibration without the need for large numbers of known standards. For analyzing discharge wastewater, the Ultra Carry® thin film sample preparation system gives operators a new means of quantifying hazardous metals, with detection limits in the ppb range. Ultra Carry eliminates the need for complex sample preparation, giving non-technical operators a simpler analysis technique and a lower cost of ownership. Paper Presentation - 20 minutes Abstract # 047

Abstract# 48 - 10:20 AM - 20 minutes - Floral Hall A - Wednesday
"Analytical Simultaneous Determination Of Total Sulfur And Nitrogen By NCD And UV-Fluorescence"
B. Sausse; F. Fang, M. Neuffer, M. Homan and A. Mendez - PAC
Sulfur and Nitrogen although present at low concentrations in hydrocarbon streams, play an important role in refining and upgrading processes. For this reason they need to be accurately determined in feedstocks, intermediate and final products and in many cases they need to be speciated. Often the technical specifications are not met in part because of the existence of refractory chemical species like the 4,6 di-alkyl DBTs that remain even after hydrodesulphurization. The quality specifications of final fuel products are more stringent every day not only from the environmental standpoint but also due to their toxicity and detrimental effects on catalysts. NOx is well known to form explosive compounds with dienes especially in cold boxes of ethylene and olefins plants. Total Sulfur and Nitrogen contents are determined by combustion followed by UV-fluorescence and chemiluminescence detection. The statistical study reported here deals with the analysis of different configurations of furnaces for N and S modules equipped with both single and dual path pyrolizer tubes. A series of advances of hardware and software nature have been introduced that impact directly on the limits of detection, quantitation, dynamic range, specificity and precision of the determinations. Paper Presentation - 20 minutes Abstract # 048

Abstract# 49 - 10:30 AM - 30 min – Iris - Tuesday
"Composition-based Separations of Polyolefins by Gradient Adsorption High-Temperature Liquid Chromatography"

Matthew D. Miller, A. Willem DeGroot, Bill Winniford, John W. Lyons, and Freddy Van Damme - The Dow Chemical Company
Advancing techniques in polyolefin design and development have resulted in polymers with increased complexity as well as increased challenges in their characterization. Comonomer distribution is commonly determined by crystallinity-based separations (ATREF, CRYSTAF). However, these techniques fail for amorphous polymers and some semi-crystalline polymers fall victim to co-crystallization, reducing the techniques universal utility. This paper presents the recent invention of a polyolefin characterization tool based upon gradient adsorption high-temperature liquid chromatography with a graphitic stationary phase. HT-LC can ideally overcome the limitations of crystallinity-based separations, shedding new light on polyolefin composition. The basic separation capability of the HT-LC technique and some targeted applications are demonstrated. Paper Presentation - 30 minutes Abstract # 049

Abstract# 50 - 3:20 PM - 20 minutes - Floral Hall A - Tuesday
"Comprehensive Two-Dimensional Gas Chromatography (GCxGC) Analysis of Aviation Fuel Contaminated with Biodiesel"
John V. Seeley, Carly T. Bates, James D. McCurry, and Stacy K. Seeley - Oakland University
There is growing concern that biodiesel residue in pipelines can contaminate aviation fuel. The main worry is that residual fatty acid methyl esters (FAMEs) can stick to engine parts and lead to engine failure. The aviation fuel community currently specifies that FAMEs should not be present in jet fuel at levels greater than 5 ppm Unfortunately, measuring ppm levels of FAMES is very difficult due to the thousands of hydrocarbons found in aviation fuel. We have developed a new comprehensive two-dimensional gas chromatography (GC x GC) method for quantifying low levels of FAMEs in aviation fuel. Previously published GC x GC analyses of biodiesel blends have coupled a polydimethyl siloxane stationary phase with a polyethylene glycol stationary phase. We have found that such an approach is ineffective for monitoring low levels of FAMEs due to co-elutions with aromatic hydrocarbons. We have instead used a trifluoropropylmethyl polysiloxane primary stationary phase (DB-210) coupled to a 50% phenyl 50% methylpolysiloxane secondary stationary phase (HP-50+). This unique column combination fully separates the FAME peaks from the petroleum hydrocarbon peaks. We have shown that our GCxGC method provides accurate quantification of FAMEs at levels as low as 2 ppm. Paper Presentation - 20 minutes Abstract # 050

Abstract# 51 - 1:15 PM - Exhibit Hall - Wednesday
"Inert Column Hardware for the Separation of Difficult Samples in RP-HPLC"
Rob Freeman, Dan DiFeo, Hans Jurgen Wirth, Andrew Gooley, Paul Wynne, Peter Dawes - SGE Analytical Science
We will investigate the role of metal surfaces on the broadening and tailing of some peaks in reversed phase chromatography. Analytes containing high amounts of oxygen have the potential to form chelates with iron resulting in poor peak shape when analyzed with HPLC. The largest source of these non specific interactions is the stationary phase due to its large surface area but other surfaces such as the frit, the column wall, and the connection capillaries contribute as well. We will evaluate a range of column hardware with coated surfaces (either glass- or PEEK"-lined stainless steel) and metal-free frits to minimize non-specific binding of analytes. These columns were also packed with highly inert C18 silica to optimize column performance. We will show that eliminating all sources of metal in the flow path significantly improves the peak shape of various active compounds. Poster Presentation Abstract # 051

Abstract# 52 - 4:15 PM - 30 minutes - Floral Hall A - Tuesday
"MaintenancePRO & Bringing Asset Integrity to Instrument Maintenance"
Walter McNeil; Jonathan Richter - Baytek International
Amongst all the challenges of the day, routine tasks such as instrument maintenance are often left unmanaged. However, the cost of not overseeing the integrity of assets can be great & instruments can be underutilized, down-time excessive, and replacement schedules inadequate. Baytek International is proud to release our latest product: MaintenancePRO an innovative tool for bringing asset integrity to your lab by managing equipment history, maintenance schedules, maintenance tasks and backlogs, as well as equipment efficiency reporting & all through a portal structured web application. Please come meet with us and see how Baytek International can help you lower your equipment cost of ownership and bring asset integrity to your labs routine. Paper Presentation - 30 minutes Abstract # 052

Abstract# 53 - 1:00 PM - 20 minutes – Hibiscus - Tuesday
"Implimentation of a PTV Inlet and Column Backflush for Increased Throughput of High Molecular Weight Polyolefin Oligomer Samples"
Chanda Ciriacks Klinker, James Griffith, Bill Winniford, & Shayne Green - The Dow Chemical Company
High molecular weight oligomers are well known for causing peak shapes to broaden and ultimately fouling columns. To solve this problem, a programmable temperature vaporizing (PTV) inlet is being used in conjunction with a column backflush to prevent build up of high molecular weight oligomers. The PTV inlet allows for the inlet to be rapidly heated after injection, while the backflush is used to flush the high molecular weight oligomers back out the inlet. Using this technique, we have been to increase the number of injections over 350% with no observable fouling of the column or inlet. Seminar Presentation - 20 minutes Abtract # 053

Abstract# 54 - 3:00 PM - 20 minutes - Floral Hall A - Tuesday
"Investigation Into Using a Quadrapole Mass Selective Detector in Combination with Simple Capillary Flow Tees for Flow Modulated GC x GC-MSD"
James Griffith, Bill Winniford, Jim Luong and Kefu Sun - The Dow Chemical Company
A fast scanning bench-top quadrapole mass selective detector was used in combination with capillary flow tees and a replaceable restrictor to investigate the ability of a flow modulated GC x GC-MSD system to produce meaningful results. This system was compared to a thermally modulated GC x GC time-of-flight system which serves as the standard. The potential exists to generate acceptable

results using flow modulation and a mass selective detector at a much lower cost than the GC x GC-TOF. Paper Presentation - 20 minutes Abstract # 054

Abstract# 55 - 11:15 AM - 30 minutes – Hibiscus - Tuesday
"New Analytical Valve Technology from AFP"
Gordon McFarlane, Yves Gamache - Analytical Flow Products
A new concept in valve injection and switching for analytical chromatography will be described. The valve system is based on a simple 3-way elementary switching cell. By combining these switching cells, all standard chromatographic configurations can be done with much better precision. This concept of purging with carrier gas in GC, virtually eliminates any dead volume, and inboard/outboard leaks. Rotary valves wear quickly because of the friction between rotating surfaces. The use of a diaphragm eliminates the wear problem because of its frictionless design. INNOVATION is just one of our many products. Paper Presentation - 30 minutes Abstract # 055

Abstract# 56 - 1:30 PM - Exhibit Hall - Wednesday
"Rapid Determination of Water from 50 ppm to 80% in Oil"
Steven M. Barnett, Frank Higgins, and John Seelenbinder - A2 Technologies
FTIR provides the ability for rapid analytical measurements with little or no sample preparation. For the measurement of water content in organic fluids such as crude oil, quantitative work is complicated by the different forms that water exists in organic fluids (e.g., solute, suspension, etc.), and by the difficulty in using FTIR transmission cells needed for accurate quantitative measurements. The development of a surfactant-enabled water stabilization method and a simplified FTIR transmission sampling system now allows for the rapid and simple quantification of water in organic fluids to levels as low as 50 ppm and as high as 80%. The entire analysis takes a few minutes with very few consumables and may be performed in a lab or as a field measurement. Poster Presentation Abstract # 056

Abstract# 57 - 1:45 PM - Exhibit Hall - Wednesday
"Rapid, Simple FTIR Fuel Analysis System"
Steven M. Barnett, Frank Higgins, and John Seelenbinder - A2 Technologies
FTIR allows for the rapid measurement of fuel constituents for routine monitoring. An FTIR system has been developed to determine ethanol, MTBE, benzene, octane (RON and MON), AKI, olefins, and total aromatics. The system is based on a nine-bounce diamond ATR cell that allows for easy cleanup and can simultaneously run ASTM method 7371 to quantify the amount of biodiesel in diesel from 1% to 100%. Individual samples may be taken or the system may be used with a flow cell. Results from this system will be presented as well as results from a separate system that can be used to quantify biodiesel content in diesel fuel to 250 ppm. Poster Presentation Abstract # 057

Abstract# 58 - 10:00 AM - 20 minutes - Floral Hall A - Wednesday
"Total Sulfur in Petroleum Products - A Realistic Expectation by ICP?"
Matthew Cassap, Thermo Fisher Scientific, Cambridge UK
Total sulfur measurements are a requirement for many petroleum products. To date, a number of techniques have been successfully utilized for determination of total sulfur in these samples which include (but are not limited to) combustion and XRF. However, these techniques are often limited by their multi-element capabilities and extended analysis times. A more efficient technique for the determination of total sulfur potentially may be ICP. This is due to the fact that other elements could be determined simultaneously and possible detection limits, precision, accuracy and speed of analysis may also be more favorable when using this analytical technique. This paper will summarize the results of investigations using a Thermo Scientific iCAP 6000 Series ICP for total sulfur measurements in petroleum based samples. Paper Presentation - 20 minutes Abstract # 058

Abstract# 59 - 10:00 AM - Exhibit Hall - Wednesday
"Multi-Dimensional GC/GCMS"
Gordon McFarlane, Yves Gamachev- Analytical Flow Products
Analytical Flow Products is a new Canadian manufacturer of valves and fittings for Gas Chromatography. Our completely re-designed, patented valves enable the analyst to perform many techniques that were never before possible. Diaphragm valves can now be reliably used for ppb, ppt analysis, and long life service. Rotary valves can now be purged to reduce inboard/outboard and cross-port leaks. Other techniques such as multi-dimensional GC/GCMS, peak slicing, peak transfer, sequential injection, isolation, selection and bypass applications are described. Innovation is just one of our many products. Come see where the future is being created. Poster Presentation Abstract # 059

Abstract# 60 - 1:00 PM - 3 hours – Daffodil - Wednesday
"Agilent 7890 GC Method Developers Workshop"
James McCurry, Roger Firor, and Bruce Quimby - Agilent Technologies
The 7890A GC uses advanced technologies to improve analytical methods used in the petroleum laboratories. Many of these features are unfamiliar to chemists developing and updating methods. This workshop will provide a technical forum to describe the operation, optimization and application of the advanced 7890A GC features. For the 2009 Gulf Coast Conference four topics presented. 1. Deans switch and back flushing using Capillary Flow Technology. 2. Flow modulated GCxGC using the new Capillary Flow Technology modulator. 3. Ultra-Fast GC using Low Thermal Mass (LTM) column modules. 4. Automating Sample Preparation using a new Automated Liquid Sampler Workshop Presentation - 3 hours Abstract # 060

Abstract# 61 - 2:00 PM - 30 minutes - Floral Hall A - Tuesday
"Improving the Analysis of FAMEs in Jet Fuel using GC/MS combined with Heart-Cutting 2-D GC"
James McCurry, Bruce Quimby and Ruby Ong - Agilent Technologies
Biodiesel is now widely used throughout world due to increased demand for renewable, cleans fuels. However, transport of biodiesel through pipelines, barges, tanker cars and trucks often leave residues of fatty acid methyl esters (FAMEs) that can contaminate jet fuels transported by the same means. This has raised a concern with airlines and aircraft manufacturers prompting a limit of 5 ppm total FAMEs in aviation turbine fuel (AVTUR). This paper will present a method that combines a heart-cutting 2-D GC with the industry standard GC/MS method, IP PM DY-09, to reduce potential interferences and improved detection. Paper Presentation - 30 minutes Abstract # 061

Abstract# 62 - 1:00 PM - 20 minutes - Floral Hall A - Tuesday
"Fundamentals of Comprehensive Two Dimensional Gas Chromatography (GC x GC)"
Bill Winniford, Kefu Sun, James Griffith, Jim Luong, Matthias Pursch - Dow Chemical
This presentation will briefly review the basics of GC x GC for those that are new to the technique. Thermal modulation will be compared with differential flow modulation. The effect of the capacity factor on resolution in the 2nd dimension will be shown with conventional (nonpolar x polar) and "reversed" (polar x nonpolar) column sets. Paper Presentation - 20 minutes Abstract # 062

Abstract# 63 - 1:20 PM - 20 minutes - Floral Hall A - Tuesday
"Use of Retention Indices to Assist in Structural Identification by GCxGC/TOFMS"
Kefu Sun, Bill Winniford - Dow Chemical
Kovats retention index (RI) was widely used in gas chromatography for identification and other purposes; RI data are available in literatures for a large amount of compounds on a wide variety of stationary phases. This presentation will discuss various aspects of using retention indices in GCxGC analysis including calculation of retention index in GCxGC, effect of calculation methods on identification, optimization of GCxGC analysis for use of retention indices and role of retention indices in structural elucidation by GCxGC/TOFMS. Practical tips and examples of using retention indices in GCxGC/TOFMS analysis will be presented. Paper Presentation - 20 minutes Abstract # 063

Abstract# 64 - 1:00 PM - 4 hours – Iris - Tuesday
"Thermo Scientific Seminar"
Michael Harter - Thermo Scientific
Sessions TBD Seminar Presentation - 4 hours Abstract # 064

Abstract# 65 - 10:30 AM - 90 minutes - Floral Hall A - Tuesday
"Innovative Gas-phase Analytical Techniques for Material and Process Characterization"
R.R. Freeman, T.Ramus, S Hein, T. Yuzawa
1. On-line GC/MS Identification of volatile organics formed during the UV irradiation of polymeric materials R.R. Freeman, Quantum Analytics, Foster City, CA T Yuzawa, Frontier Laboratories, Koriyama, Japan T. Ramus, Diablo Analytical, Antioch, CA

One aspect of material characterization that remains problematic is the identification of volatile compounds formed when a polymeric material is exposed to light, oxygen, heat and moisture. This has made the elucidation of reaction

pathways a matter of deductive reasoning rather than being based on direct measurements. In addition, the performance of various additives may also be affected during UV-curing or day-to-day exposure. This presentation describes a UVPY-GC/MS system that can capture, separate and identify volatile compounds released as a material is irradiated. The irradiated sample can then be analyzed using a variety of methods in order to determine the effects of the irradiation on the polymer itself. Chromatograms of the volatiles released when polycarbonate, polystyrene, polypropylene and various methacrylates are irradiated will illustrate the versatility of the UVPY-GC/MS technique. 2. Using the Micro-Chamber/ Thermal Extractor (¼-CTE) to automate materials emissions testing for industrial quality control R.R. Freeman, Quantum Analytics, Foster City, CC P. Hughes, Markes International, Wales Quality Control laboratories are continuously challenged by a diverse array of analytical problems. Products may suffer from undesirable properties such as having an odor or being off-color. The cause and impact of such anomalies must be identified. QA analytical methods must be rapid, rugged and produce results that can be easily interpreted, while various headspace techniques have proven useful, they often lack the sensitivity necessary to verify product specifications. A multi-sample Micro-Chamber/ Thermal Extractor (¼-CTE) provides industry and researchers with a versatile and automated tool for materials testing. It is as easy to use as direct thermal desorption but can be used for either: ÏTesting surface emissions - i.e. to produce data that correlates with conventional emissions tests, or ÏThermal desorption/ extraction of bulk materials to measure the VOC/SVOC content or to characterize the odor/fragrance of a product. This work will describe a rapid method for identifying an odor in polystyrene, identifying the emissions from vinyl flooring and emissions from a printed circuit board. 3. The direct determination of residual Bisphenol A using thermal desorption GC/MS. R.R. Freeman, Quantum Analytics, Foster City, CA A. Hosaka, Frontier Laboratories, Koriyama, Japan Bisphenol A is used as a copolymer in the production of polycarbonate (PC). Residual Bis A is often found in the PC matrix, despite efforts to remove it during the manufacturing process. Also, Bis A is formed when PC is exposed to UV radiation. Because it is an endocrine disruptor and of general concern, a number of different analytical protocols are used to quantitatively determine residual Bis A in a number of consumer products. A simple 2-step analytical protocol to accurately quantitate residual Bisphenol A in polycarbonate will be presented. First, the Bis A is derivatized using TMS. The derivative is then thermally extracted from the polymeric matrix using TD-GC/MS. The determination of Bisphenol A in several consumer products will be presented along with the precision and accuracy of the measurement. 4. Strategies for the direct and real-time measurement of gases by mass spectrometry for new fuel development. T. Ramus, Diablo Analytical, Antioch, CA S. Hein, Diablo Analytical, Antioch, CA R.R. Freeman, Quantum Analytics, Foster City, CA The performance and characteristics of catalyst materials is common and has been studied for many years. Recently, work in this area has focused on new fuel development and the relationship to green house gases. Gas mixtures need to be monitored in smaller scale beds and in conjunction with devices that may generate sudden changes in output. Direct or real-time analytical monitoring can easily characterize these changes and quicken the pace of development. Mass spectrometry is capable of very fast response across a wide mass range. It is one of several powerful techniques. The challenges with mass spectrometry in this type of experiment often include the interface to vacuum, system flexibility, system stability, qualitative versus quantitative results, and ease of use. This presentation will address these challenges. Workshop Presentation - 90 minutes Abstract # 065

Abstract# 66 – 10:05 AM - 20 minutes – Daffodil - Wednesday
"Capillary Columns for High Temperature GC Based on Improved Liquid Phase Technology"
Johan Kuipers, Max Erwine, Coen Duvekot, Norbert Reuter - Varian B.V.
Gas chromatography is moving towards the analysis of compounds with increasing higher boiling points. The fast GC analysis of high boiling hydrocarbon fractions, triglycerides, natural waxes, antioxidants and surfactants may require column elution temperatures in excess of 400°C. These high oven temperatures of HT GC create the need for extreme temperature resistant stationary phases with minimal thermal breakdown. The liquid phase should exhibit low bleed characteristics to determine low level impurities in the high temperature section of the GC analysis. New Varian liquid phase synthesis technology has resulted in highly temperature stable siloxane stationary phases with excellent inertness and longevity. The liquid phases have been coated both fused silica and Ultimetal" treated 0.25/0.32mm ID stainless steel capillaries. The metal columns have been operated at temperatures up to 450°C showing extended lifetime and maintaining high efficiency and excellent peak shapes. This paper shows some HT-GC applications on these columns illustrating their performance for these demanding analyses. Paper Presentation - 20 minuntes Abstract # 066

Abstract# 67 – 9:45 AM - 20 minutes – Daffodil - Wednesday
"Thick Film Columns for Gas Analysis and Valve Switching Techniques"
Johan Kuipers, Max Erwine, Coen Duvekot, Norbert Reuter - Varian B.V.
The GC analysis of gases and low boiling compounds often involves the use of PLOT columns. These columns are highly suitable because of their high retentive power and good separation efficiency for many volatiles. However, PLOT columns may present analytical limitations because of partial compound absorption, instability of the particle layer or changing separation characteristics due to absorption of moisture and CO2. Super thick film columns based on siloxane liquid phases can partly overcome these obstacles. In the past these columns often suffered from poor quality. Varian now introduces a super thick film column with high separation efficiency. The column is highly inert providing excellent responses for difficult compounds like formaldehyde and sulfur gases. The Super thick film column can be also applied as alternative pre-column instead of porous polymer PLOT columns for valve switching techniques because of their high retention for permanent gases and CO2. This paper will discuss the benefits and limitations in the use of these columns for some demanding applications in the field of gas analysis and their use in valve switching systems. Paper Presentation - 20 minuntes Abstract # 067

Abstract# 68 - 3:00 PM - 60 minutes - Floral Hall A - Wednesday
"LIMS Preparation: Defining Business Practices to Save Cost during the Configuration Phase"
Jeanne Mensingh - EM2 Solutions, Inc.
Once the LIMS vendor has been chosen, the project team can gather information prior to the Kick-Off meeting with the vendor to ensure a cost effective implementation. Configuration of the LIMS to meet business practices is the time and labor intensive portion of the project. By documenting the static data, mapping the processes, and developing the reports, a company can reduce the time spent onsite by the vendor for these activities. Professional services supplied by the vendor tend to be equivalent or more than the actual software cost. By investing time in gathering information, the project team can impact the cost of the implementation. This presentation will provide information on how to prepare for the Kick-Off meeting and gather the information required by the vendor. Key Topics: Kick-Off Meeting; Static Data; Process Mapping; and Report Development. Seminar Presentation - 60 minutes Abstract # 068

Abstract# 69 - 4:00 PM - 60 minutes - Floral Hall A - Wednesday
"Preparing the LIMS Request for Proposal and Evaluating the Vendors"
Jeanne Mensingh - EM2 Solutions, Inc.
The preparation of the Laboratory Information Management System (LIMS) request for proposal is an important step in choosing the LIMS vendor. Many companies start scheduling LIMS vendors for demonstrations prior to setting up the requirements. This generally leads to confusion since LIMS vendors tend to show all the best applications of their software. The applications may or may not fit the business practices of the company. This presentation will outline the key steps to preparing the requirements and setting up the demonstrations. Key Points covered in the presentation: Developing the Requirements; Preparing the script; Demonstrations; and Evaluating the vendor. Seminar Presentation - 60 minutes Abstract # 069

Abstract# 70 - 1:40 PM - 20 minutes - Floral Hall A - Tuesday
"Development of a Two-Dimensional Retention Index System for GCxGC"
John Dimandja, Scott J. Hoy, Nicholas V. Hud - Georgia Institute of Technology
Gas chromatographic retention index systems are useful in the comparison of retention times that may be acquired by different analysts under a variety of operating conditions. In this work we have sought to develop a practical two-dimensional retention index grid for GCxGC that is the result of a combination of two retention index systems (the Kovats index and the Lee index) that have previously been used in one-dimensional GC. A number of parameters were tested to investigate the effect of various operational parameters on the retention index values, and thus test the ruggedness of the normalized retention system. Paper Presentation- 20 minutes Abstract # 070

Abstract# 71 - 10:20 AM - 30 minutes – Bluebonnet - Tuesday
"Making Process Gas Chromatography Plug-and-Play"
Brian Rohrback - Infometrix, Inc.
All forms of chromatography are subject to column and sampling variability. In many applications, the fluctuation in retention time forces the operator to review and occasional intervene to insure precise, reproducible peak identification and quantitation. As a result, eliminating retention time variability has been an oft-stated goal where accurate identification is required for improved data analysis. It is possible to use a software mechanism for correcting shifts in retention time resulting from normal operation of a process GC. Because this approach requires no intervention by the operator, it can be run as part of an unattended chromatographic sequence. Interestingly, the proper handling of retention time shifts appears to simplify the calibration issue for most applications. The primary benefits are found in performing objective data interpretation in real time, and in making the distribution of methods and applications much more plug-and-play. In this way, analytical experience gained in one location on one instrument is transferable worldwide. As the technology is a software-only solution, it can be applied equally to new installations and as simple retrofits for existing chromatographic systems. Paper Presentation - 30 minutes Abstract # 071

Abstract# 72 - 10:45 AM - 30 minutes – Bluebonnet - Tuesday
"Rethinking Process GC"
John Crandall, Falcon Analytical Carl Rechsteiner, Chevron - Falcon Analytical
Brian G. Rohrback, Infometrix
A task force was started three years ago to rethink how process gas chromatography is done in petroleum refineries and in chemical plants. The effort was spearheaded by a chemicals and petroleum company (Chevron), an analytical instrument designer (Falcon) and a software implementation house (Infometrix). The expertise of several other companies was added to identify the parameters of a new generation of process gas chromatographic equipment and to address barriers to building an all-new instrument system. This presentation summarizes that multi-company, multi-year effort and reveals the conclusions to date. The primary considerations were: " We need to have flexibility in detection systems with TCD, FID, FPD and ECD to cover all of the analytical requirements; " The GC must be fast (5 minute analysis or less) to be able to report results in time to keep reasonable control of the process; " The gap between laboratory and process results must be closed; " The calibration and recalibration demands must be minimized; and " More complex analyses such as DHA must be more automated and made to be more robust in order for these high-value analyses to be successful on-line. Paper Presentation - 30 minutes Abstract # 072

Abstract# 73 - 3:40 PM - 20 minutes - Floral Hall A - Tuesday
"A New and Improved ASTM D3606 Method"
Tom Adamski - Alpha Omega Technologies, Inc.
The problems associated with the conventional ASTM D3606 method are well known by all petroleum laboratories that run this method on a be fast (5 minute analysis or less) to be able to report results in time to keep reasonable control of the process; " The gap between laboratory and process results must be closed; " The calibration and recalibration demands must be minimized; and " More complex analyses such as DHA must be more automated and made to be more robust in order for these high-value analyses to be successful on-line. Paper Presentation - 30 minutes Abstract # 072

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"A New and Improved ASTM D3606 Method"
Tom Adamski - Alpha Omega Technologies, Inc.
The problems associated with the conventional ASTM D3606 method are well known by all petroleum laboratories that run this method on a Xability to analyze a much wider range of component concentrations. This system produces precise qualitative and quantitative data that far surpasses the conventional method for this analysis. Paper Presentation - 20 minutes Abstract # 073

Abstract# 74 - 2:00PM - 30 minutes – Hibiscus - Tuesday
"GEANNA High Speed Refinery Gas AnalyzerA Versatile, Multi-Application Analyzer"
Rich Addonizio - Alpha Omega Technologies, Inc.
Alpha Omega Technologies (AOT) has established its GEANNA High Speed Refinery Gas Analyzer (HSRGA) as the rugged, robust, and versatile analyzer of the future. What started out as a lightning fast RGA with analysis times in as little as 90 seconds, has evolved to a Multi-Application analyzer of the future. Utilizing the same patented technology, we are able to provide a solution for the issues encountered in Mud Logging Gas analysis. A fast, accurate analysis is critical for the decision making in Natural Gas exploration. The GEANNA can offer a fast analysis of C1 thru C5 in 45 seconds and an extended analysis out to C8 in less than 90 seconds. This system utilizes the GEANNA HSRGA, 2 Flame Ionization Detectors, and a Thermal Conductivity Detector on a conventional gas chromatograph. AOT has proved, from the cumulative data analyzed, that the GEANNA HSRGA demonstrates excellent precision and accuracy with RSD less than 1.0% for both concentration and retention times with a natural gas standard. This high speed analysis offers the capability for the real time collection of drilling data. Mud Logging data points can be gathered every 2 to 3 minutes offering companies searching for natural resources a valuable tool in the exploration for Natural Gas. Paper Presentation - 30 minutes Abstract # 074

Abstract# 75 - 10:30 AM - Exhibit Hall - Wednesday
"The Use of Supercritical Fluid Chromatography in Biodiesel Analysis"
Curt M. White - TharSFC a Waters Company
Packed column SFC has been used to determine the total amount of fatty acid methyl esters(FAMEs)in diesel fuel. It has also been used to perform quality control on the incoming biodiesel fuel used to blend with diesel. The incoming biodiesel is separated into, FAMEs, mono-, di- and triglycerides as well as free fatty acids and methanol. Poster Presentation Abstract # 075

Abstract# 76 - 10:20 AM - 30 minutes – Bluebonnet - Wednesday
"Sulfur in Fuel Measurement Using X-ray Technology"
Michael C. Pohl, David Malone, Rudy Haas - Horiba Instruments, Inc.
The simplest way to determine sulur concentrations in fuel samples is to use X-ray Fluorescence technology. The relative ease of use, quick analyses and absence of sample preparation led to wide acceptance by the fuel industry. For traditional fuels like jet fuel, gasoline and diesel fuel, it has historically been the method of choice. With the advent of newer fuels like reformulated gasoline, E-85 and bio-diesel fuels, new challenges have been introduced. The introduction of oxygen containing materials to the fuels have complicated the measurement considerably. These challenges will be explored, and possible technical solutions to these problems will be proposed. Paper Presentation - 30 minutes Abstract # 076

Abstract# 77 - 2:00 PM - 30 min – Bluebonnet - Wednesday
"Thermo PetroilQuant - Complete WDXRF Petrochemical Analysis Package"
Al Martin - Thermo Fisher Scientific, Mario Van Driessche - X-Ray Services
With the introduction of Thermo Scientifics PetroilQuant, the analysis of all types of light and heavy fuel mixtures and both new and used lubricating oils using WDXRF reaches new levels of simplicity combined with improved precision and accuracy. PetroilQuant calibrations are based on pure element corrections over a wide working range, free of absorption/enhancement effects combined with multiple source base standards. These unique features combined with PetroilQuant software and maintenance standards offer the most comprehensive analytical package available. This paper discusses the setup and calibration options for 25 elements for applications including ultra low S analysis, fuel mixtures including biofuels, and lubricants and greases. Comparisons and advantages of PetroilQuant with various powered WDXRF systems offered by Thermo Scientific are also illustrated. Paper Presentation - 30 minutes

Abstract # 077
Abstract# 78 - 2:30 PM - 30 minutes - Floral Hall A - Tuesday
"Refinery Gas Analysis by Multi Dimensional Gas Chromatography and Micro-GC. A Complete Solution"
Coen Duvekot - Varian Inc
There is a big variation in composition and source of refinery gases. Therefore

the precise and accurate analysis of these gases is a significant challenge in today's refineries. Typical sources include FCC overheads, ethylene, propylene, fuel gas, stack gas, off gas etc. The physical stream ranges from gas to highly pressurized gas or liquid. This paper outlines the different GC configurations that can be used including possibilities and limitations in terms of sample stream and analysis time. The configurations vary from benchtop GC's to a portable micro-GC. Paper Presentation - 30 minutes Abstract # 078

Abstract# 79 - 2:30 PM - 30 minutes – Bluebonnet - Wednesday
"Introducing the new ultra-compact WDXRF for Sulfur Analysis of Petrochemical Products - ASTM 2622 compliant equipped with Petro-Pak. The ultimate full service sulfur analysis soltion"
Laura Oelofse - Rigaku Americas Corp
Sulfur analysis of petrochemical products continues to be a basic requirement to ensure the usability of the end products produced during the petrochemical refining process. The solution presented in this paper is a highly cost effective method to meet compliance requirements and to have a system that requires minimal operator maintenance while operating at the highest level of fidelity. Paper Presentation - 30 minutes Abstract # 079

Abstract# 80 - 9:00 - 9am - 5pm – Bluebonnet - Thursday
"South West Regional User Group Seminar"
South West Regional User Group Seminar User Group - 8 hours Abstract # 080

Abstract# 81 - 3:15 PM - 30 minutes - Hibiscus - Wednesday
"High-Throughput TD-NMR Technology for Polymer and Petrochemical Products Analysis and Process Control"
Xenia Tombokan, Supriyo Ghosh - Bruker Optics Inc.
The upstream and downstream processes in polymer and petrochemical industries involve various unit operations on raw materials. These processing steps induce multiple physico-chemical changes leading to the desirable properties in the final product. During the process development and industrial-scale production, investigation of the quality of the product as well as the efficiency of each process step needs to be fast, accurate, and precise. TD-NMR (time domain nuclear magnetic resonance) is a technique which can be utilized to look into the products and physicochemical processes at a molecular level and precisely quantify them, using a small bench-top instrument. It obtains the signal from the atomic nucleus in a material. Mathematical analysis of the TD-NMR signal reveals the changes occurring at a molecular level in a material. Measurements can be done in a matter of a few seconds to obtain a dynamic, quantitative characteriza tion of materials. The entire measurement procedure can be done in a continuous fashion using automated robotic system. In this presentation, the basic principle of TD-NMR technology will be introduced. Various high throughput automated TD-NMR characterizations relevant to product characterization and process development for polymer petrochemical industries will be elaborated. Applications of TD-NMR include but not limited to examination of petrophysical properties of rock cores, such as bulk porosity, permeability, wettability, pore size distribution, degree of water saturations; quick determination of the capillary pressure curve and fluid exchange between pores; determination of the percentage of hydrogen in hydrocarbon mixtures, hydrogen content in coal, oil content in oil shale and oil sand, oil content in wax/paraffin, viscosity of oils, fluorine content in polymers, emulsion stability, droplet size in o/w or w/o emulsions, density of polymers, co-polymer ratios, extent of polymerization, crosslink density, degree of hydrolysis of polymer, and impurity quantification. Possible new applications of TD-NMR technology in the polymer and petrochemical industry will also be discussed. Paper Presentation - 30 minutes Abstract # 081

Abstract# 83 - 9:30 AM - 30 minutes - Hibiscus - Tuesday
"BTEX in Plant Waters using the 7683 Autosampler and 5769 Instrumentation"
Matthew Monagle, Advanced Industrial Chemistry, Albuquerque, NM 87114 Tim Coley, Western Refining, Gallup, NM 87301
It is often desirable to measure light hydrocarbons such as benzene, toluene, ethyl benzene or the xylenes in cooling waters or discharge waters to ensure that there are no leaking connections within a facility. This paper presents a simple way to inter-convert an Agilent GC/MS system configured for 5769 analysis to an automated BTEX monitoring instrument. The conversion is made possible by the application of the variable sampling depth of the Agilent 7683 autosampler which allows the user to configure the system for a simple headspace analysis. The method configuration, calibration curve and method detection limit data will be presented. In addition, challenges in method implementation will be discussed. Paper Presentation - 30 minutes Abstract # 083

Exhibitors 2009

A&B Labs
NELAC, NVLAP, AIHA and HUB accredited laboratory providing analytical services in Environmental, Industrial Hygiene, Indoor/Ambient Air, and Microbiolgy.
Booth # 321

A2 Technologies
A2 Technologies is focused on out-of-laboratory FTIR measurements A2's primary goal is on bringing FTIR to more and more diverse applications and end users. The portable FTIR systems are designed to enable experienced FTIR users to develop dedicated methods, and then for those methods to be deployed with A2's innovative FTIR analyzers in out-of-lab environments.
Booth # 116

Agilent Technologies
Agilent is a leading provider of life sciences and analytical instrument systems to scientists in life sciences, pharmaceutical, environmental and chemical industries, worldwide. The company offers scientists the range of instruments including LC-MS, HPLC, Bioanalyzer, Micro array solutions, ICP-MS, GC, and GC-MS systems, as well as services needed for success in acquiring and interpreting genetic and chemical information - from sample handling, to analysis to data management and reporting. Agilent is committed to providing superior standards-based technology, designed for maximum productivity, cost effectiveness and ease in complying with regulatory requirements.
Booth # 903, 905

Airgas SW
Airgas, Inc. (NYSE;ARG), through its subsidiaries, is the largest U.S. distributor of industrial, medical, and specialty gases and related hardgoods, such as welding supplies. Airgas is also a leading U.S. distributor of safety products, the largest U.S. producer of nitrous oxide and dry ice, the largest liquid carbon dioxide producer in the Southeast, and a leading distributor of process chemicals, refrigerants and ammonia products. To locate your local branch, call 866-924-7427. To access Airgas on-line, go to www.airgas.com.
Booth # 608

Alpha Omega Technologies, Inc.
Sales, leases/rentals of new and reconditioned HP and Agilent GCs, GC/MS, HPLC, UV-VIS, and data systems configured to customer specifications. New Varian GC, GC/MS, Purge and Trap, Archons, and Galaxie Data Systems. Depot Repair Center, Customer Training Center, and telephone technical support. Geanna High Speed Refinery Analyzer analyzes a whole suite of refinery gasses in under 100 seconds. Parts and supplies including reconditioned parts for discontinued HP and Agilent equipment.
Booth # 102, 104

American Laboratory
Our publications are edited for North American chemists and life scientists who have a professional interest in the application of modern instrumentation to analytical chemistry, bio-analysis and applied spectroscopy. The editorial includes application notes, technical articles, conference reviews and information on the most current laboratory instrumentation. Home Page http://www.iscpubs.com
Booth # 619

AMK Glass
AMK Glass has manufactured petrochemical and laboratory glassware for over 35 years. We are dedicated to producing the highest quality products at the most affordable price. Some of the items that we manufacture are D86 Flasks, D86 Probes, D95 Glassware, FIA Glassware, D1160 Flasks, Quartz Glassware & Viscometers. We also offer a repair & custom glassware service.
Booth # 323

Analytical Flow Products (A Division of Mecanique Analytique Inc)
Analytical Flow Products is a new Canadian manufacturer of valves and fittings for Gas Chromatography. Our completely re-designed, patented valves enable the analyst to perform many techniques that were never before possible. Diaphragm valves can now be reliably used for ppb, ppt analysis, and long life service. Rotary valves can now be purged to reduce inboard/outboard and cross-port leaks. Innovation is just one of our many products. Come see where the future is being created.
Booth # 521

Analytical Reference Materials International
Analytical Reference Materials (ARMI) is an ISO certified manufacturer and distributor of certified reference materials for metals, refined petroleum products, and coal, as well as a distributor for most all of the worldSection 1s other CRM manufacturers and their products. Through its Meinhard Glass Products and Lato Scientific Glassware divisions, ARMI is also a manufacturer and distributor of precision scientific glassware for ICP and ICPMS instruments. Custom glassware is available for special R&D projects, as well as repairs for critical glassware components. Please visit its websites for electronic catalogs and additional information. The websites are: www.armi.com, www.meinhard.com, and www.latoscientific.com.
Booth # 615

Analytical Services, Inc.
Manufacturer of Calibration Standards for the Petroleum & Lubricating Industries. We also offer standards for ROHS/WEEE Complaince testing for EDXRF, WLXRF, and hand held instruments. We pride ourselves in customer service and satisfaction
Booth # 909

Anton PAAR
Anton Paar, producer of high-end measuring instruments and analyzers for research and industry, is a leading global force in the field of density and concentration measurement, CO2 measurement as well as Microwave Synthesis. To keep one step ahead of the state of the art, Anton Paar invests more than 20 % of its turnover in Research and Development.
Booth # 411,510

Arizona Instrument LLC
Arizona Instrument is an ISO 9001:2000 registered company that designs, manufactures, and markets the complete line of Computrac precision moisture, solids, and ash analysis instruments and Jerome portable and fixed toxic gas detectors. These instruments are used in research and development, quality control, process control, and environmental monitoring applications. We provide comprehensive pre- and post-sale customer service including application development, training, and instrument calibration and repair.
Booth # 917

ATOM Instrument Corp.
Providing practical and innovative solutions to the petroleum and petrochemical industries. Primary products and expertise related to Excimer UV Fluorescence (EUVF) detection technologies and methods development. Manufacturer of Excimer UV excitation sources providing exceptional stability, high sensitivity and unsurpassed nitrogen rejection performance characteristics. Principle applications include total sulfur analysis and related instrumentation measuring sulfur dioxide by UV Fluorescence.
Booth # 319

B/R Instrument Corp
Manufacture distillation equipment for various applications including ASTM D1160, D2892 and D5236, solvent recycling and fractional distillation. Specializing in Spinning Band distillation systems.
Booth # 714

Baytek International
Fully functional WinBLISS LIMS for the Refining, Petrochemical, Chemical, Bulk Pharmaceutical industries. Innovative architecture shortens implementation time and reduces cost. Fully integrated instrument interface/automation module for all types of instruments: GC's, Mass Spec on line analyzers, titrators, ADA's etc. TurboTube" - a sample vial distribution system for the entire laboratory. BayID - an advanced RFID sample tracking solution provides exact time and location for remote samples and uses information in Advanced Process Control Strategies. Consulting services to integrate with SAP QM, AspenTech IP-21, OSI-PI, Honeywell, JD Edwards etc. WebBLISS provides a web-based search engine and statistical analysis tool.
Booth # 716, 718

Brechbuehler Inc.
Value Added Partner of Thermo Scientific, Brechbuehler, Inc. specializes in GC, GC/MS Systems for custom applications. Our solutions are based on the FOCUS or TRACE GC and DSQII and POLARISQ GC/MS systems and feature CTC autosamplers for both GC and LC, Sniffer 9000 a State of the Art GC-O system, Prep9000 GC fraction collector, VarioSplit programmable splitter, MCSS 2DGC and more Fast Refinery Gas Analyzers, Natural Gas Analyzers, Oxygenate Analyzers, SIMDIST Analyzers
Booth # 108

Bruker
Bruker AXS provides cost-effective WDXRF and EDXRF instruments for elemental analysis of petrochemical products. Visit our booth and see why Bruker XRF instruments are efficient and reliable quality control tools in the production of fuels, lube oils, polymers & more.
Booth # 708, 710

CAMSCO
Our company manufactures sorbent tubes. Since 1991, Camsco has grown to become a leading manufacturer of consumables used in dozens of leading thermal desorption instruments. Tubes made in stainless steel, glass, quartz and Teflon. Camsco supports the U.S. military, The Department of Homeland Security, Environmental Protection Agency as well as hundreds of companies in industry, quality, security and emergency response. Camsco is continually expanding its role with emerging markets and research and development.
Booth # 118

Chemflow Systems, Inc
Pecision gasoline/ethanol and chemical blending/delivery systems. Designed with our patended U-Tube technology and gravity flow techinque. No pumps or scales are used or required. Unparalleled accuracy and repeatability.
Booth # 405

Chemplex Industries
New 3.0µ Prolene®, 1.5, 2.0 and 2.5µ aromatic hydrocarbon resistant Etnom" thin-film sample cup windows push the limit for sulfur and other light element transparency. Thin-film sample support windows are available in SpectroMembrane® Carrier Frames that offer no static cling, no contamination through handling, no waste, no experience necessary; continuous rolls and precut circles. Over 40 XRF Sample Cups inclusive of the new SpectroMicro" Sample Cups and thin-film windows are RoHS compliant. 12 Ton Manual and 30 Ton Automatic SpectroPress® Systems; PelletDies" and the new SpectroPellet® Film die protectors; SpectroMills® and GyralGrinder® grinding machines; comminution vessels; PelletCups®; Grinding/binding additives; Fusion Fluxes; AutoFluxers®; SpectroCertified® oil standards, single and multiple elements in individuals and sets; Accessories; Free Analyte-Line % Transmittance Chart and CD Catalog. Order on-line at: http://www.chemplex.com.
Booth # 911

Compass Instruments
Laboratory Testing Equipment for determining the physical properties and performance characteristics of Fuels, Lubricants, and Materials. North American Distributors of Waukesha Engine-Dresser CFR Products, Eralytics, Falex Corporation, Normalab, PCS Instruments, Parker Hannifin, and Strama-MPS. Instrument Sales and Service. Oxidation ASTM D3241, Octane ASTM D2699 and D2700, Cetane (D613 and D7170), Vapor Pressure (D5188, D5191, D5492, D6377, D6378, D6897), Fuel Lubricity (D5001, D6078 and D6079), Particle Counters, Distillation (D86 and D1160), Flash Point (D56, D92, D93), Oxidation, Penetration, Cold Flow (D2500) and (D97), Tribology Testing. www.compass-instruments.com (630) 556 4835 Sugar Grove, IL USA.
Booth # 417, 419

Cosa Instrument Corp
Cosa Instrument supplies laboratory and process markets nationwide, specializing in high technology analyzers for a wide range of applications in many industries. Cosa Instrument will be displaying their: Trace Sulfur Analyzer, Trace Chlorine/Sulfur Analyzer, Simultaneous Dual-Channel Coulometric/Volumetric KF and Bromine Index Analyzer, Autosampler KF Moisture Meter, and their Combustion I.C.. New instruments this year will be; their FT-IR Spectroscopy Analyzers, Pensky-Martens Closed Cup Flash Point Analyzer, and the Portable Cloud Point Analyzer.
Booth # 407

DC Scientific
DC Scientific is an ISO 9001 registered manufacturer of precision glassware products and distributor of analytical testing equipment for the petroleum laboratory. DC manufactures a broad range of products ranging from viscometer tubes to FIA Systems to temperature probes for leading brands of equipment. DC is also partnered in the United States with B/R Instrument, Paragon Scientific, Lovibond Tintometer, Horiba and Tamson to provide first class products for petroleum testing. B/R Instrument provides Auto,Semi-Auto, and Manual D1160 Vacuum Distillation Systems. Paragon Scientific, an ISO 17025 accredited company, provides certified reference materials for Viscosity, CCS, Color, and TAN/TBN. Lovibond Tintometer, an ISO 9001 registered manufacturer, products include a full range of color measurement equipment including ASTM, Saybolt, APHA/Pt-Co, and Acid Wash Color. Horiba provides instruments for measurement of sulfur in oil. Tamson products include Viscosity Baths, Heating and Cooling Baths and Circulators. DC Scientific also provides service for most major brands of petroleum testing equipment and is a Tintometer, Tamson, and Horiba Certified Service Center.
Booth # 503, 505

Dionex Corporation
Ion Chromatography HPLC, Mass Spec, Accelerated Solvent Extraction
Booth # 509,511

EM2 Solutions, Inc.
EM2 Solutions is a provider of quality and regulatory consulting services. We help companies execute quality management systems based on ISO standards (9001, 17025), regulatory requirements (GMP, EPA) or industry best practices (ASTM). EM2 provides comprehensive quality services such as auditing, technical writing, validation, training, and process improvements. EM2 specializes in laboratory operations within the petrochemical and specialty chemical industries. Visit our website: www.em2solutionsinc.com
Booth # 620

EMD Chemicals Inc
EMD manufactures high-purity chemicals and reagents for research and analytical laboratories in industrial, academic and life science markets; high-purity chemicals for R & D, scale-up and production in pharmaceutical and biopharmaceutical industries; TLC plates and silica gel, test strips for environmental testing and microbiology products, including rapid tests for food, beverage and environmental companies. Products of interest to the petrochemical industry include our OmniSolv® high-purity solvents, OmniTrace® and SupraPur® high-purity acids, Aquastar® Karl Fisher titrators and reagents, Optifix® liquid handling devices and ACS/GR reagents for QC and environmental analysis.
Booth # 414

EST Analytical

Since 1990, EST has supplied analytical laboratories throughout the U.S. with advanced instrumentation solutions. EST has grown dramatically over the past several years by creating a culture of commitment to our customer's success. Our innovative approaches to improving laboratory throughput and profitability within the laboratory are the result of this commitment and have become standards in the industry.
Booth # 211

Fisher Scientific
Fisher Scientific is a leading provider of equipment, instrumentation, chemicals, consumables and services to the worldwide scientific community. From chemicals to consumables, chromatography to titrators, equipment to test kits we provide the products you need to support research, testing and production. Our extensive product portfolio is unrivaled in the industry allowing Fisher Scientific to serve as your single source for infinite solutions.
Booth # 311, 410

Fox Scientific, Inc
Established in 1988 Fox Scientific, Inc. offers a full range of laboratory supplies, equipment, and chemicals. We continue to be a great alternative to National Distribution. Powerful online ordering technology and a proactive customer service department give customers the products, pricing and service they deserve.
Booth # 421

Full Spectrum Analytics Inc.
HOUSTON! Full Spectrum Analytics, Inc. (FSA) has added Houston to its 11 offices located across the U.S. from New Jersey to Los Angeles. FSA is an industry leading support provider for all of your chromatography needs at your Environmental or Petroleum laboratory. We specialize in products manufactured by Teledyne Tekmar, OI Analytical, Wasson, Agilent, AC Controls, Varian, PerkinElmer and PAC. Booth # 703
Booth # 703

GE Analytical Instruments
See the new Sievers InnovOx Laboratory Total Organic Carbon (TOC) Analyzer from GE Analytical Instruments that can run thousands of tough industrial process, challenging environmental and corrosive wastewater samples - including concentrated brine solutions - with unprecedented uptime. Using an innovative Supercritical Water Oxidation technique, the InnovOx offers superior analytical performance, 6-month calibration stability, and regulatory method compliance. It has a 0.05-50.000 ppm detection range, and measures TC, TIC, TOC, and Non-Purgeable Organic Carbon (NPOC).
Booth # 920

GT Instruments
Automatic distillation units D86, D1160, TBPD2892, D5236, Aquamax KF Coulometric and Volumetric Titrators, Coulometric KF reagents. Petroleum physical testers, GC Software Simdist, DHA, PONA, online. Catalyst physical properties analyzers. Automatic and manual ASTM petroleum apparatus. Flash point testers.
Booth # 516

Heidolph Brinkmann LLC
Heidolph Instruments, founded in 1938 as a manufacturer of precision drive motors and engineering, is a manufacturer of High Quality laboratory equipment, specializing in rotary evaporation, shakers, overhead stirrers, peristaltic pumps and magnetic hotplate stirrers. Heidolph Brinkmann was formed as our North American headquarters and includes exclusive partnerships for Tuttnauer - autoclave sterilizers, Radleys - syntheses solutions, and AirClean - laboratory ventilation solutions. Our Chicago area office provides National Customer Service, Product Repair, Technical Support, Warehousing, and Field Sales Management.
Booth # 621

Horiba Instruments, Inc
A variety of analyzers for use by the oil industry will be on display. These include several types of instruments to measure low levels of sulfur in fuel and chemicals. The fuel qualifier analyzer for determining aviation fuel quality will be shown. Equipment to determine the oil content of water steams will be present. A general purpose ICP will be on display.
Booth # 502

Horiba Jobin Yvon
HORIBA Jobin Yvon - The new ACTIVA M ICP spectrometer with CCD Solid State Detection uses innovative interactive software and statistical tools for improved accuracy and enhanced reliability. The interactive tools include full-spectrum acquisition, multi-line analysis, wavelength filtering and outlier rejection. JY Glow Discharge-Optical Emissions Products and the Horiba Carbon/Sulfur, Oxygen/Nitrogen and Hydrogen Analyzers will also be presented.
Booth # 504

Horizon Technology, Inc.
Horizon Technology is a leading manufacturer of automated sample preparation systems for the analysis of organic compounds in aqueous samples and Oil & Grease testing. Environmental labs who follow EPA methods for semi-volatile organics, Oil & Grease, DRO's, TPH, Pesticides, and Explosives have found our complete, automated sample preparation systems and consumables increase productivity, improve the accuracy of their results and lower operating costs.
Booth # 121

ICL Calibration Laboratories, Inc.
An ISO/IEC 17025 Accredited Calibration Laboratory offering A2LA accredited, NIST Traceable Calibration Services for Thermometers, Hydrometers, Weights, Humidity devices and Volumetric Glassware. ICL is also a leading supplier of ASTM & non ASTM thermometers, Hart Scientific brand Platinum Resistance thermometers and Industrial RTDs, Digital Thermometers, ASTM Hydrometers, ASTM Weight sets, ASTM & Petroleum glassware, Humidity equipment, Viscometers and Viscosity Standards. For our customers involved with petroleum gauging and inspection, ICL offers ThermoProbe Digital Gauging thermometers, Lufkin Oil Gauging tapes & bobs, NIST traceable tape verification services, MMC Intl. Tri-Mode (UTI) Gauging tapes, samplers and vapor control valves, Petroleum Samplers, Factory Authorized repairs and recalibration services for both ThermoProbe and MMC Intl. as well as many more gauging accessories. For a complete listing of ICL's products and services, please visit www.iclabs.com.
Booth # 805

Inspectorate America Corporation
Inspectorate has been a trusted name in the inspection and laboratory services business for over 50 years. We have offices in 122 countries with the backing of over 4,000 employees to ensure your inspections and testing are done accurately and on time. testing. For more information and pricing please call 713-948-5126 or via email: sales@inspectorate.com
Booth # 203

Intertek OCA
Intertek is a leading provider of quality and safety solutions serving a wide range of industries around the world. From auditing and inspection, to testing, quality assurance and certification. Intertek people are dedicated to adding value to customers' products and processes, supporting their success in the global marketplace. Intertek has the expertise, resources and global reach to support its customers through its network of more than 1,000 laboratories and offices and over 23,000 people in 110 countries around the world.
Booth # 923

ISGAS, Inc.
ISGAS is a supplier of custom calibration standards for many industries - Refining, Chemical, Research & Development and many others. We offer a full range of hydrocarbon standards including - Gases, LPG/LNG, Liquids, ASTM/UOP, Sulfur, CEM, HRVOC, etc. We can ampulize you process streams, and even offer custom distillation work. We can also build gas chromatograph's for your specific needs. We specialize in HRVOC Standards.
Booth # 420

JULABO
A worldwide manufacturer and distributor of fluid temperature control baths and circulators. Julabo offers a broad product line ranging from Refrigerated & Heating Circulators/baths from -95°C to +200°C, Highly Dynamic Temperature Control Systems for reactors from -90°C to +400°C, Water Baths from +20°C to +99°C, Chillers from -25C to +150C with up to 10kW cooling power, Temperature Calibration Baths from -30°C to +300°C and Temperature Laboratory Controllers. The instruments offer faster cool down times, smaller footprints, quiet operation, digital and analog interfaces, external temperature measurement & control and nationwide coverage for preventative maintenance and service plans.
Booth # 415

Kitco Metals Inc.
Internationally renowned for precious metals since 1977, Kitco Metals, supplies a full spectrum of platinum crucibles, dishes, electrodes. Our line of crucibles features the XRF platinum ware necessitated by all the major fusion machines. Kitco Metals also supplies sputtering targets, crucibles for crystal growth, components for glass manufacturing, etc. Our refining terms to credit the used metals are among the most competitive in the industry. Visit our website with access to the metal market prices and charts http://platinum.kitco.com
Booth # 220
Koehler Instrument Company
Manufacturer of Petroleum Testing Equipment
Booth # 416

Lab Products, Inc.
Chromatography Supplies, Environmental Sample Containers, General Lab Supplies.
Booth # 514

Lab Support, a Division of On Assignment
Lab Support, a division of On Assignment, is a recognized leader in the scientific staffing industry. Since 1985, our sole focus has been to place scientific professionals in contract, contract-to-hire and Direct Hire positions. With in excess of 200,000 successful matches over the past 20 years, we have built a reputation as one of the best in the business. Through our Lab Support, Clinical Research and Engineering divisions, we serve a variety of clients and industries, including biotechnology, medical device, pharmaceuticals, food and beverage, environmental, chemicals, consumer care, clinical laboratories, hospitals, universities, and municipalities.
Booth # 306

LabX / Lab Manager Magazine
Online auctions and classified ads for the scientific equipment community. LabX has also recently acquired Lab Manager Magazine. Stop by the LabX booth for a free subscription! In operation since 1995, LabX is an independent marketplace where scientific professionals communicate buying and selling requirements for laboratory equipment and supplies. Join over 150,000 registered members to purchase new, surplus, and used equipment. Check out the Great Deals section to find amazing promotions from new equipment manufacturers, or browse thousands of items in over 330 equipment categories including: HPLC, GC, Spectroscopy, Glassware, Process Equipment, Pilot Plant and more.
Booth # 316

LANCER
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Booth # 302

Lauda-Brinkmann
Manufacture of water baths, chillers, circulators, viscosity, and tensimetry equipment.
Booth # 701

Lawler Manufacturing
Celebrating over 60 years serving the laboratory equipment needs of the fuels and lubricants industry. Please visit our booth to learn more about our manual and automated physical property testing apparatus. We offer cold properties equipment for cloud, pour, freeze, CFPP, and LTFT. Other equipment including gravity, corrosion, FIA, foam testing, Octane engine automation, oxidation, rust, TOST, viscosity (high and low temp.), water separability and much more. Learn how our heated tube technology replaces bulky block baths. Also, we welcome new equipment design applications, so bring us your requirements. Booth #403
Booth # 403

Lazar Scientific, Inc.
Lazar Scientific sells and services a complete slate of petroleum test instruments from manufacturers including Stanhope Seta, Seta Analytics, XOS, Rheotek, Phase Technology, Tannas Instrument Co., King Refrigeration, Lawler Mfg., Thermoprobe and ICL Calibration Labs. Newest items include AvCount aviation fuel particle counter, H2S in liquid analyzer, IQT Cetane tester, Sindie Gen3 sulfur analyzer, Clora X-Ray analyzer for chlorides, mini-cloud point tester, automatic viscometer for jet fuel and the MFT multi-filtration tester for D2068.
Booth # 721

LCGC Magazine
LCGC is the largest dedicated chromatography publication in North America. Our editorial covers all key growth segments, including pharmaceutical analysis, environmental, food analysis, petroleum and biofuels research, and chiral technology. Our peer-reviewed, method- and applications-oriented content helps laboratories become more productive, links advertisers and buyers, and facilitates the spread of cutting-edge scientific information throughout the chromatography community.
Booth # 518

Leap Technologies
LEAP delivers the automation advantage to R&D, quality control, pharmaceutical, polymer, food processing, forensic, and academic laboratories. LEAP strives to find custom solutions for all industries using analytical processes for small and large molecules in extracted liquids, solids, and in human, animal and plant tissues. We provide the precise robotics and efficient sample prep required by modern measurement techniques such as mass spectroscopy.

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Booth # 210
LEMIS USA INC.
Manufacturing of Digital Density Meters & Viscometers for Petrochemical Industry
Booth # 214, 216

Matheson Tri-Gas, Inc.
Matheson Tri-Gas, Inc. is a single source for industrial, medical, specialty and electronic gases, gas handling equipment, high performance purification systems, engineering and gas management services, and on-site gas generation with a mission to deliver innovative solutions for global customer requirements. Matheson Tri-Gas, Inc. is the largest subsidiary of Taiyo Nippon Sanso Corporation, one of the top five suppliers of industrial, specialty, and electronics gases in the world.
Booth # 110, 112

MeCour Temperature Control
Precise Temperature Control for Critical Applications MeCour Temperature Control offers benchtop and automated systems an alternative to messy and imprecise methods of temperature control used in many labs. MeCourSection 1s proprietary Thermal Block technology

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Booth # 219

Metrohm USA, Inc
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Booth # 308

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Booth # 609, 611

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Booth # 315

NLISIS Chromatography BV
NLISIS pronounced “Analysis” is committed to making substantial improvements to techniques used in the field of chemical analysis. NLISIS Chromatography strives to launch innovations that are easy to use and decrease the total cost of ownership through an easier and better performance. The first product NLISIS developed is the NLISIS Meltfit One, a new, reliable and efficient method for coupling capillary columns in GC, GCxGC, CZE and all other coupled column capillary separation techniques.
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Booth # 103

Pace Analytical Services, Inc. - LabOps Division
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Booth # 318

PANalytical
Booth # 606

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Booth # 418

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Peak Scientific are manufacturers of laboratory gas generators including hydrogen, nitrogen & zero air suitable to operate most laboratory analytical applications such as GC & LCMS. With varying flow rates, purities & pressures and available with or without internal air compressors, we are confident we will offer you the complete solution to your total gas requirements. Our gas generators provide a safe & economical alternative to combustible bottled gas & cylinders & offer a constant purity resulting in accurate analysis.
Booth # 317

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Booth # 205,207, 209

Petro Industry News
Petro Industry News is a world-wide publication focusing on the instrumentation sector of the oil related industries. Each edition reaches a global circulation of users and specifiers of analytical instrumentation in oil refineries, QA/QC and R&D labs, petrochemical plants and storage facilities. Biofuel Industry News has recently been incorporated within the pages of P.I.N., this title examines the latest analytical technology and methodology for biofuel analysis.
Booth # 120

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Booth # 320, 322

Phase Technology
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Pollution Equipment News/Rimbach Publishing Inc.
POLLUTION EQUIPMENT NEWS, reaches over 90,000 professionals who are responsible for air, water, wastewater pollution control and hazardous waste disposal. INDUSTRIAL HYGIENE NEWS features products and services in the occupational safety and health industries.
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Rheotek
RHEOTEK introduces new JETVISC Automatic Kinematic Viscometer Analyzer at 2009 GCC. The JETVISC Reports kinematic viscosity results in full compliance with ASTM D445, IP 71 and ISO 3104.For use at sub-zero -20C; -40C; -60C etc and standard Temperatures. Applications include Jet fuels, Hydraulic oils, Brake Fluids, low temperature lubricants, diesels and other petroleum applications. www.rheotek.com
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Booth # 704, 706

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Booth # 720

Shimadzu Scientific Instruments, Inc.
Booth # 520

Specialty Gas Report
Specialty Gas Report is the premier magazine for professionals who produce, distribute and use specialty, medical and scientific gases. Now in its tenth year, Specialty Gas Report publishes regularly articles on new advancements in production of pure and mixed gases, analytical instrumentation, and their applications. Our website offers a gold mine of information - with access to all articles published in the past 10 years, searchable by key and name of author.
Booth # 114

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Booth # 617

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Booth # 902, 904

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Booth # 603

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Booth # 106

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Booth # 610

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Monday
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12:30 Shotgun Start
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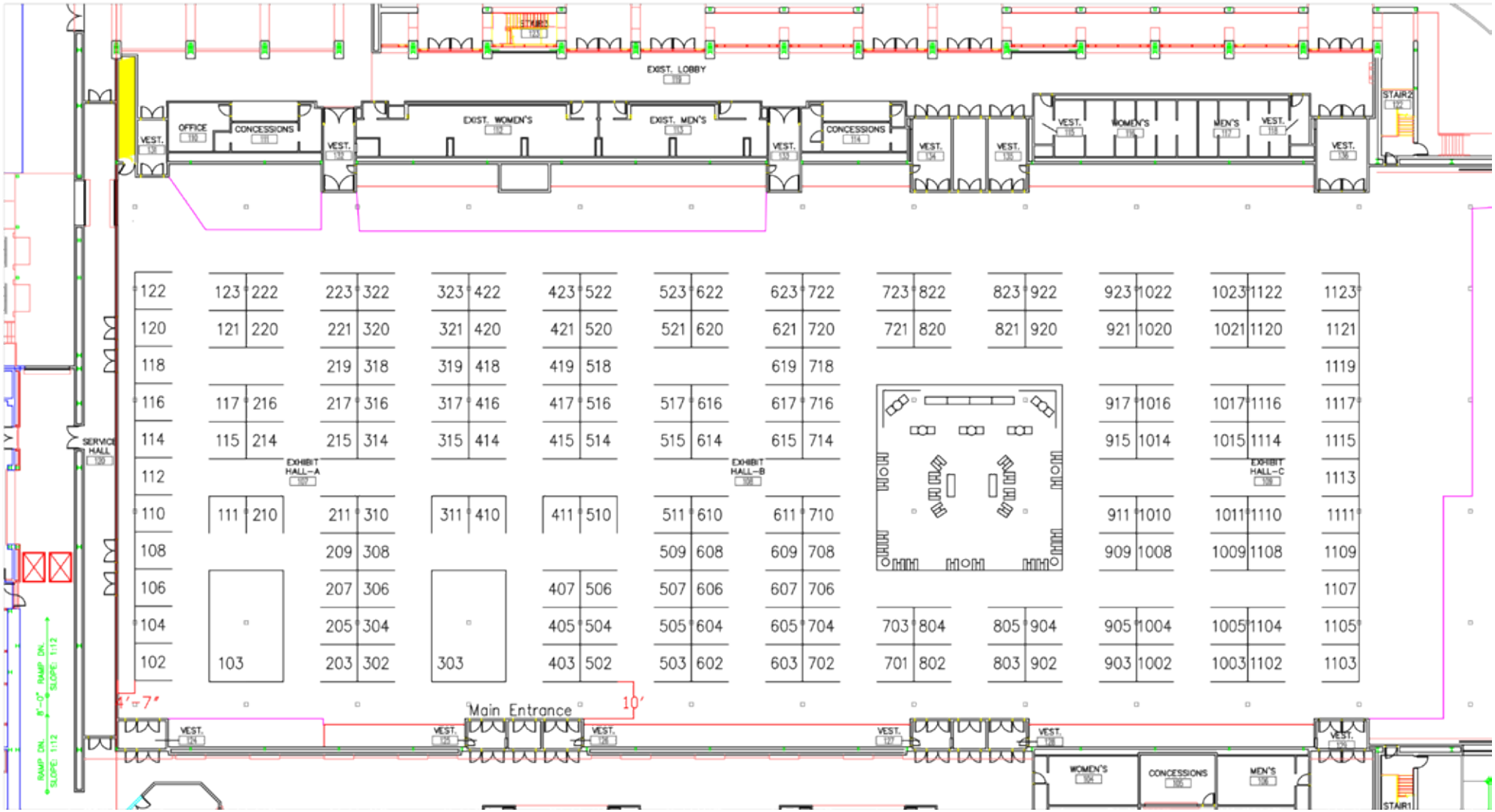

2010 Gulf Coast Conference Schedule

March 1, 2010	**Call For Papers**
July 15, 2010	**Paper Submission Deadline**
July 15, 2010	**Program Advertising Deadline**
October 11, 2010	**GCC Golf Tournament**
October 11, 2010	**Exhibitor Move In**
October 12, 2010 - 9:00 AM	**Conference Opens**
October 13, 2009 - 5:00 PM	**Conference Closes**

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