

Gulf Coast Conference 2017

Workshop Sessions / Exhibitor / Posters /
General Session Presentations / Event Sponsor



Abstracts for Agilent Seminars

Date: Wednesday, January 17th, 2018

Location: George R Brown Convention
Center, Houston, TX - Room 372E

Time: 09:00 a.m. – 02:30 p.m.

Highlights:

- Stay after the workshop session for a live Q&A with Agilent experts discussing ICP-MS & ICP-OES techniques for Petroleum analysis.
- Visit Agilent in the main Exhibit Hall: booths #622 & 624.
- View additional Agilent presentations in room 372D, 382B, 382C and the Exhibit Hall classroom (End of 200 Aisle).



Analysis of Polycyclic Aromatic Hydrocarbons in Petroleum Vacuum Residues by Multiple Heart-Cutting LC Using the Agilent 1290 Infinity 2D-LC Solution

Michael Woodman, 9:00 a.m., Abstract #240

Polycyclic aromatic hydrocarbons (PAHs) were determined in a petroleum vacuum distillation residue using the Agilent Multiple Heart-Cutting (MHC) 2D-LC solution. The extract was analyzed in the first dimension by normal-phase LC. Well-defined fractions from this separation were stored in a set of sample loops, then transferred online to the second-dimension separation where the PAHs were separated from each other and from other sample constituents using reversed-phase LC on a dedicated PAH column. Detection was performed with diode-array detection (DAD) as the monitor detector after the first dimension, and with fluorescence detection (FLD) after the second dimension. An additional column switching valve enabled backflush of the first-dimension normal-phase column to remove highly polar components. The Agilent 1290 Infinity 2D-LC solution enabled automated, selective, and quantitative analysis of the PAHs in the complex petroleum vacuum distillation residue sample.

Introducing the New Chemiluminescence Detector (xCD) and Low Level Ammonia Analysis by NCD

Kelly Beard, 9:30 a.m., Abstract #241

Agilent has recently introduced a new and improved NCD and SCD. This paper will cover the improvements in the detectors and the resulting improved operation, precision, robustness, and long term stability. Follow by a "Low Level Ammonia Analysis" utilizing the improvements to the NCD.

Go online for more information:

www.agilent.com/chem/gcc-2017

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Two Proposed ASTM methods on Elemental Analysis of Biodiesel and Crude Oil by Microwave Plasma Atomic Emission Spectrometry (MP-AES)

Jenny Nelson, 10:00 a.m., Abstract #247

One of the latest atomic spectroscopic techniques for measurement of trace elements in biodiesel and crude oils is Microwave Plasma Atomic Emission Spectrometry (MP-AES). This technique can replace other atomic spectrometric techniques such as atomic absorption spectrometry (AAS), graphite furnace atomic absorption spectrometry (GF-AAS), and compliment inductively coupled plasma atomic emission spectrometry (ICP-AES) and inductively coupled plasma mass spectrometry (ICP-MS), which are widely used in the petroleum industry. Performing elemental analysis in locations where obtaining argon is a challenge for the petroleum industry. MP-AES technology is a suitable alternative for this industry. Although other atomic spectroscopic techniques mentioned above are used in the petroleum industry, ASTM D02.03 Committee on Elemental Analysis is currently working towards development of two standards. There is an immediate need to define and implement an ASTM standard that would describe a procedure for the determination of trace elements in petroleum products using MP-AES. This work will present the proposed method which describes, the multi-element determination of trace elements by MP-AES in biodiesel and crude oil. In this case, we used Premisolv or o-xylene to dilute the samples and standards and then added an internal standard of Scandium and Yttrium into each diluted sample.

Go Paperless for an Efficient Accurate Lab

Kathleen O'Dea, 10:45 a.m., Abstract #245

Would you like to reduce archiving costs by eliminating expensive off site storage of data, eliminating retrieval costs and reducing man hours associated with information retrieval. How about drastically reducing the time to retrieve and present requested information from days to minutes? We can also reduce the time and cost associated with recording daily tasks while improving the speed and reliability of those tasks. Join Agilent to learn about OpenLAB tools that improve your operation.

Be a Lab Hero with OpenLAB CDS ChemStation Edition

Jennifer McCulley, 11:15 a.m., Abstract #243

Join Agilent to learn simple tricks to improve productivity using the software you already have in your lab. OpenLAB CDS ChemStation Edition has tools you may have overlooked which help you analyze more samples, process more data and make you the Friday afternoon hero. Learn from an Agilent expert who uses the product every day.

Implementing the new ASTM Method D8110 – 17: Elemental Analysis of Distillate Products by Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Mark Kelinske, 1:30 p.m., Abstract #237

In this session we will demonstrate the use of the Agilent ICP-MS portfolio to perform the new ASTM D8110-17 method for elemental analysis of distillate products by ICP-MS. We will discuss instrument operation and share lessons learned to ensure easy implementation of this new petrochemical method.

How to Choose Proper FTIR Spectroscopic Techniques to Analyze Petroleum Products

Yanqia Wang, 2:00 p.m., Abstract #238

Fourier transform infrared (FTIR) spectroscopy is a versatile tool used to characterize petroleum products by quantifying additives, detecting contaminants, monitoring degradation byproducts and fighting adulteration. FTIR spectroscopy has become a widely used technique for quickly assessing petroleum product characteristics, and yet many people don't fully understand how it works and how to make it more efficient. Due to the different properties and testing goal, it is critical to choose the proper technique to facilitate the analyze of petroleum products. This presentation provides a comprehensive introduction to the FTIR testing techniques and how to choose the proper FTIR techniques to satisfy different petroleum product analysis.