

INNOVATIONS THAT IMPROVE LAB PRODUCTIVITY

Agilent Technologies...

...invites you to join us for a full-day seminar that is designed to expand your understanding of the latest products and technologies available to make any laboratory more productive.

This seminar will feature a variety of topics on gas chromatography (GC) - everything from theory to maintaining injection ports to the future of GC. so, if you are a current user of Agilent's GC or GC/MS systems, no matter if you have a vintage HP 5890 GC, 5971 GC/MS System or the latest 7890B with Q-TOF for MS, this is the seminar you will want to attend.

Location

Oklahoma State University

Thursday, April 10, 2014

8:00 a.m. - 4:30 p.m.

FAPC - Room 201

Robert M. Kerr Food & Agricultural
Products Center
Oklahoma State University
Stillwater, OK 74078-6055



Agenda:

8:00 Registration Opens

8:30 GC INTRODUCTION AND THEORY

This presentation will focus on just how gas chromatography works and just what is really going on inside the capillary. The information will be presented first in a very straight-forward way and reinforced with basic chromatographic theory so that the novice as well as the experienced chromatographer can benefit from the discussion. This is the basic foundation and framework on which the other seminars are built.

9:30 COLUMN LIFE - CARE OF GC COLUMNS

An ounce of prevention...is worth a lot of GC columns. Keeping the GC system up and running is the goal. Preventative maintenance is the key. This talk centers on those things that damage the column and discusses ways to prevent problems before they occur. The four major reasons why columns die is presented as well as how to avoid those problems so that the column will last forever.

10:30 MAINTAINING YOUR SPLIT/SPLITLESS INJECTION PORT

One of the biggest issues specific to Gas Chromatography is the fact that there are more things that don't go through a GC than do. These non-volatile residues or contaminations accumulate in the injection port and on the head of the GC column. Therefore, routine maintenance and cleaning of the injection port and column must be performed. This talk will go through major items that need to be replaced or cleaned as well as the tips and tricks to maintaining your Agilent Split/Splitless Injection Port.

11:30 OPTIMIZING THE TEMPERATURE PROGRAM

Trial and error is the most time consuming way to develop an optimized temperature program for an analysis. Knowing what "trial" has the highest chance of success can drastically reduce method development time. Specific instruction is given in this presentation on how to best manipulate the temperature program to maximize resolution or reduce overall analysis times.

12:00 LUNCH BREAK

1:00 TROUBLESHOOTING

Two of the worst words you can put together for most chromatographers is Down Time. Knowing how to diagnose problems and correct them is not generally taught before the analyst ever gets in front of the instrument. Experience, trial and error, and dumb luck often lead to remedies that have a lot of "voo doo" attached to them. This talk centers on knowing what can truly go wrong with capillary and how to fix it.

2:15 CHOOSING THE CORRECT GC COLUMN

Most often a column is chosen for an analysis because it was the one in the instrument when the analysis was needed. This can result in a satisfactory method but with a proper choice of stationary phase type and column dimensions can often be further optimized to give better resolution, faster analyses, or a more robust system. This seminar will answer the questions; Do I need a long or short column? What role does the size of the internal diameter play? Do I need a thin or thick stationary phase film? Why would I choose a non-polar, intermediate polarity, or polar stationary phase?

3:30 THE FUTURE OF GC

This talk will focus on the latest innovations of Gas Chromatography. Topics will include utilizing the evolution of EPC or computer controlled flow to optimize injection, speed analyses, and keep the system cleaner by using Capillary Flow Technology (CFT) with backflushing. Deans Switching or two-dimensional chromatography also known as heart-cutting will be explored utilizing CFT. Other CFT devices will be discussed as well. The new Multi-Mode Inlet (MMI) will be discussed as the next generation in sample introduction. Special applications utilizing these new devices will be discussed in detail.

4:30 Q&A, WRAP-UP AND ADJOURN



Register at - www.agilent.com/chem/GC_Innovations_OSU