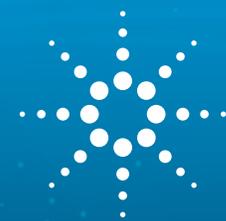




AGILENT EDUCATION HELPS ADVANCED LEARNERS **BOOST PRODUCTIVITY**

The Measure of Confidence



Customer Education

Even longtime users of analytical instruments don't always know what they don't know. That's especially true if you're self-taught. And if you think you know everything about operating an instrument—even when you don't—you may miss features that can help you do your job better and faster.

That's the situation a senior research scientist for a major tire and rubber manufacturer encountered. While still in graduate school in 1995, he began working with Agilent 6890 gas chromatography (GC) systems and associated software. Starting in a new role following graduate school, and continuing over the next decade, the researcher learned much more about the instruments. During that time, he purchased 11 Agilent 5890 and 6890 GCs for his work. Now at a global tire and rubber manufacturing company, he runs a 7890 GC with 5975 MSD, a 6890 GC with 5973 MSD and several former Varian GC models.

With this background, you might assume that this senior research scientist knew just about everything about GC/MSD hardware and software operation. As he himself says, "I thought I knew a lot." But after attending Agilent's GC/MSD ChemStation & Instrument Operation course (number H4043A) for five days, he states, "I knew about 50 percent and learned 50 percent more." Filling the gaps in his knowledge enabled him to boost productivity and better train the scientists and technicians who work with him.

SITUATION

The primary mission of the research scientist's laboratory is the innovation of new polymers and the development of advanced materials technology for tire and non-tire applications. His research laboratory works with a wide range of departments and research centers. His work includes analyzing new polymers, high-tech raw materials and smaller molecules on polymer chains, as well as problem-solving for customers who use the company's technology.

The researcher was delighted to learn that the GC/MS he was using could be combined with a flame ionization detector (FID) to screen for components and perform quantitation simultaneously. Not only does the combination save time, but it also removes sample variation possibly introduced with two different runs. He purchased Agilent's latest technology plus training but didn't attend the class until about a year after he made the purchase. "Had I known what a difference the knowledge would make, I would have attended the course much sooner," he says.

Senior Research Scientist

Research laboratory for large tire and rubber manufacturing firm

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This large manufacturer of tire and rubber products was established more than 80 years ago. The firm has manufacturing operations in 25 countries and sells in more than 150 countries worldwide.



Agilent Technologies



SOLUTION

Agilent's GC/MSD ChemStation & Instrument Operation course covers fundamental concepts of the instrument and operation of the software. Students use the Agilent 7890 GC with an MSD FID, thermal conductivity detectors and automatic liquid sampler. Attendees generally have used GC for sample analysis, but may not have run the Agilent 7890.

The course kicks off with GC/MS theory and instrument basics. The research scientist says that even in the introductory part of the course, he learned about electronics and lenses used in the GC/MS and about new developments in the field.

"Although the course focuses mainly on software, I was impressed by how much we learned about how the hardware works," he explains. Following explanations of hardware and software principles, class members worked in the lab to apply what they learned. He found the following aspects of the course particularly valuable:

- The in-depth explanation of both hardware and software from the instructor, who had 25 years of experience running Agilent GCs.
- The updated manual, almost 700 pages in two volumes, which explains step-by-step how to perform analyses using either the GC's image or dropdown menu functions.
- The range of students in the class, representing every industry from defense to research to pharmaceutical to GC manufacturing.
- The course amenities, including the clean and comfortable facility and streamlined logistics.

RESULTS

Attending an Agilent education course produced significant benefits:

- **Greater Productivity:** Revising the analysis program to run a stream of samples at once cut 10 minutes or more from preparation time.
- **Improved Knowledge:** Sharing knowledge with other scientists and technicians in the lab enables them to perform more tasks faster too.
- **Valuable Resources:** In addition to the comprehensive manuals, other students proved to be an indispensable source of experience and information.
- **Extended Application:** Learning acquired proved useful not only for the 7890 GC and accompanying MSD, but also for other Agilent and former Varian models.

Since the training, the research scientist has purchased software upgrades, libraries, samples and a headspace sampler for his lab. He's now considering an LC/MS as well. And if he does buy it, he plans to attend training immediately.



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