MP-AES AUTOMATION SOFTWARE PACK

IMAGINE TAKING YOUR ELEMENTAL ANALYSIS TO YOUR SAMPLES

Remote, automated elemental analysis

"We used the MP-AES to integrate into our automated river water monitoring technology, which formerly used colorimetric and electrochemistry analyzers. With the MP-AES system integrated into our technology, we can quickly analyze all the elements we want with excellent repeatability, accuracy and detection limits. The low cost of operation and inherent safety of the MP-AES also makes it ideally suited to this remote river water application."

Etran Technologies Inc.
Etran Technologies manufactures analytical instruments for environment, municipal water sources, food, pharmaceutical applications, including the online real-time detection of heavy-metal content in water.

Agilent's Automation Software Pack is a programming toolkit that allows remote, automated elemental analysis using the safe, simple to use MP-AES instrument.

Take the instrument to the sample

Typically, time consuming and costly sample collection and transportation is required prior to analysis being performed at the lab. Results are then communicated back so decisions can be made and actions taken based on the results. By locating the instrument at the sampling point the turnaround could be much quicker, delivering timely data that could deliver huge benefits, such as preventing environmental spills or incorrectly manufactured products.

Taking the MP-AES to the sample provides:

- accurate, reliable analysis on a broad range of elements
- steamlined workflow that gets your analysis done quicker
- enables rapid follow up response to the data, and
- liberates your operator from manual analytical instrument operation to save you time and money.

With the appropriate coding of the software client, control of the MP Expert software controlling the MP-AES instrument can be automated. You can code multiple standard MP-AES functions into a single button click. For example, turn on/off the plasma, load a worksheet, calibrate, then run samples. In a very short time, results can make their way back to your control room.

Agilent Technologies

All you need is air, electricity and connectivity

The MP-AES can perform multi element analysis (refer to Figure 1) in solution using only air and electricity.

The MP-AES uses nitrogen, which can be extracted from air, to form a plasma. This plasma is used as a high temperature emission source providing low cost, highly accurate elemental analysis. There is no need to continually change gas cylinders, provide chilled water or change hollow cathode lamps. The MP-AES is self contained, requiring only calibration solutions, samples and scheduled maintenance for ongoing operation.

Figure 1. Elements shaded grey are suitable for analysis by MP-AES.

Creating a turn-key elemental analysis solution

The Software Automation Pack is ideal for technology companies looking to include elemental analysis as part of a complete solution for an application.

Starting with the MP-AES instrument, the Software Automation pack allows automation of the elemental analysis, the results of which can be programmed to trigger a wide range of other controls. For example, actions such as opening or closing of a valve or the triggering of an alarm if the concentration of an element reaches a pre-determined threshold.

As the MP-AES does not require flammable gases it can be setup to operate unattended in remote locations.

Replacing or building an elemental analysis automation solution

You may have an existing elemental analysis system in place in a production area or at a remote location that's requiring too much maintenance or not performing as well as you'd like. An Agilent MP-AES instrument with the Software Automation Pack could be the ideal replacement. Using these two components, you can create a custom solution with low maintenance requirements and a high level of automation.

For more information contact your local
Agilent representative or visit:
www.agilent.com/chem/4210mp-aes

Agilent Technologies