Media backgrounder

The Agilent 8700 Laser Direct Infrared (LDIR) chemical imaging system

Key uses of the Agilent 8700 LDIR

- Formulation development
- Stability investigation
- Drug distribution
- Defect analysis
- Trouble shooting

Key features of the Agilent 8700 LDIR

- Speed of analysis
- High level of automation
- Intuitive software and easy to use

Overview

The Agilent 8700 Laser Direct Infrared (LDIR) chemical imaging system is the newest system in Agilent's infrared spectroscopy portfolio to date and represents a new approach to chemical imaging and spectral analysis. Designed to be used by both experts and non-experts alike, the Agilent 8700 LDIR provides a simple, highly automated approach for obtaining reliable, high-definition chemical images of constituents on a surface.

With the Agilent 8700 LDIR, users are able to quickly identify and resolve issues experienced during drug development. Simply put, the Agilent 8700 LDIR enables labs to bring pharmaceutical products to market faster and with greater confidence in their formulation.

For more information visit Agilent's newsroom or contact Victoria Wadsworth-Hansen, Global Director and Head of Public Relations (victoria.wadsworth-hansen@agilent.com)

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The Agilent 8700 LDIR's key features explained

Speed of analysis

Using the 8700 LDIR saves time and money. It quickly produces actionable information for trouble shooting. This solution is incredibly fast for formulation applications. It can chemically image large areas in less than 30 seconds.

High level of automation

The interaction between the operator and the instrument is minimal. The Clarity software fully controls the instrument. Every single aspect and usual spectroscopy choras have been automated. This means that the results are independent of the operator skills.

Intuitive software and easy to use

Agilent Clarity software makes chemical imaging simpler than ever before; so much so, that once the instrument and software are installed, laboratory operators are free to begin running their experiments. In addition, the Agilent Clarity software also provides unprecedented image quality, faster than ever before, and as a result, optimizes work streams.

Key benefits of the Agilent 8700 LDIR to laboratory operators and managers

Delivering faster, more accurate results

In our global laboratory manager survey, we found that the key challenge for over half (56%) of pharmaceutical laboratory managers was the need to ensure higher throughput and productivity. The Agilent 8700 LDIR reduces analysis time to only 2-60 minutes. Intelligent automation has also been integrated at the core of the technology to significantly reduce the risk of error in results. Intuitive visualization Clarity software also facilitates complex data interrogation and reporting, in a user-friendly way.

Day 1 value add

The Agilent 8700 LDIR has been designed to operate via a load and go method. Operators need only load the chamber, and analysis is then automated and software driven.

Reduced maintenance burden

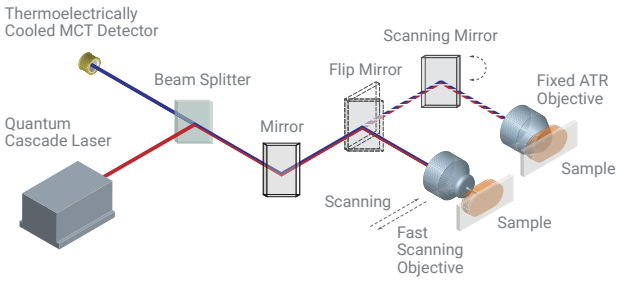
Approximately 75% of lab managers within the pharmaceutical sector find instrument maintenance the biggest challenge in managing their laboratories. The Agilent 8700 LDIR directly addresses this through reduced complexity in maintenance and setup by removing the need for liquid nitrogen cooling.

Improve working conditions

Over 40% of laboratory managers within the pharmaceutical sector are seeking to improve working conditions. One way that the Agilent 8700 LDIR addresses this need is in its compact design (16in x 15in x 24in); the instrument is significantly smaller than previous benchtop infrared spectroscopy models. Additionally, due to the lack of liquid nitrogen needed, the risk of flooding is dramatically reduced.

What is laser direct infrared spectroscopy?

Using a QCL, the Agilent 8700 LDIR directs light over the sample, creating a high quality, two dimensional molecular image of the chemical constituents that make up the sample. This is achieved by analyzing the specific wavelengths of infrared light reflected by the molecules in the sample and comparing the structure-specific signature to a reference database. Ultimately, this provides a complete map of the chemical makeup.



Published in the USA, October, 2018

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