



## CHEMICAL INDUSTRY

# Fourier 80 ChemLab with Mixture Profiling module

## Transforming NMR Analysis for the Chemical Industry

Innovation with Integrity

Chemical manufacturing requires extensive testing: from incoming raw materials through processing to final product quality control. Nuclear Magnetic Resonance (NMR) provides a valuable, comprehensive tool to identify multiple compounds in a chemical mixture with just one measurement. The Fourier 80 ChemLab with Mixture Profiling module simplifies and extends the opportunity for NMR analysis to even the routine laboratory. It expands your analytical capability for chemical mixture analysis with a database driven end-to-end workflow from measurement to report.

Optimized time-to-result, accuracy and operator independence are essential for routine chemical analysis in a manufacturing environment. The new Fourier 80 benchtop NMR provides the opportunity to fulfill all these requirements at exactly the location where you need it most.

An automated workflow provides identification and quantification of critical compounds in chemical mixtures: from incoming goods, to process control to quality control

Ensuring comparability within your analytical methods is important. The robust, nondestructive nature and consistency of NMR allows you to measure the same sample on different systems, at different times, yet with the same result.

### Features

- Intuitive Graphical User Interface (GUI)
- Concise Reporting of Results
- Data Base Driven

### Benefits

- Optional 120 sample pick-and-place automation
- Compare results with other Bruker NMR systems using the Distributed Laboratory Topology (DLT)
- Chemical mixture analysis in 20 minutes
- Small footprint with no need for cryogens
- Automated NMR: from Measurement-to-Report
- Identify and quantify in one step
- User customized chemical compound database
- Full compatibility with Bruker high resolution NMR systems

## Intuitive User Interface:

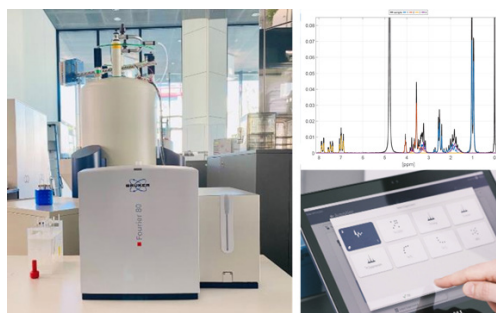
The Fourier80 ChemLab with Mixture Profiling Module is a non-expert NMR solution for routine analysis in manufacturing environments. It offers the power of NMR with an easy-to-use, fully automated work flow that produces direct, one-step chemical identification and quantification. Users with no NMR knowledge can perform advanced NMR analysis yet with automated data interpretation and reporting. The instrument is operated by the industry-standard TopSpin™ NMR software. The GoScan™ graphical user interface provides a straightforward push button operator experience.

## Concise Reporting of Results:

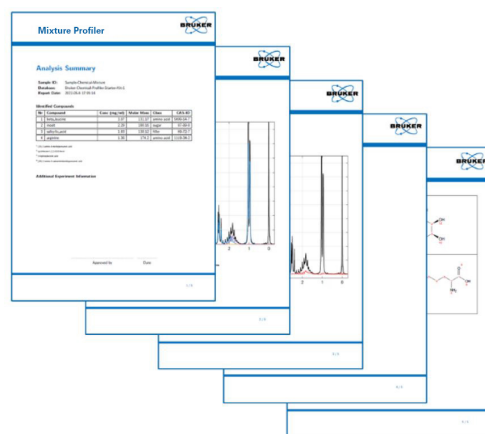
Automated report creation provides a simple table with compounds from a mixture accurately identified and quantified. NMR spectral data for compounds matched to database entries are included for additional analysis.

## Data Base Driven:

The customizable database system is easily expandable to include any new compound of interest. Simply measure the NMR spectrum and export directly to the database. Subsequent measurements will include your new compound in the spectral search algorithm.



**Figure 1:** Unique to Bruker: floor-standing and benchtop NMR with same operating software



**Figure 2:** Fourier 80 ChemLab with Mixture Profiling module report

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