InsightMR

Real-Time Data Analysis and Acquisition Control for Process Monitoring

InsightMR - Process monitoring on-the fly

Designed for the analysis of chemical processes by NMR, InsightMR is the ideal solution for both industrial and academic scientists studying or optimizing organic reactions. The user-friendly interface streamlines process monitoring for the NMR expert while allowing less experienced users, or experts in other disciplines such as synthetic organic chemistry, process chemistry and PAT, to utilize NMR tools for process understanding. InsightMR incorporates functionality from three robust, well established software programs into a single platform: TopSpin for acquisition control, IconNMR for automation, and Dynamics Center for unparalleled data processing and analysis capabilities.

InsightMR's intuitive, flexible interface ensures comprehensive chemical reaction understanding.

Your Key benefits:

- Answers to key chemical questions: reaction yield, reaction kinetics
- Reaction understanding, identification of reaction intermediates and mechanistic information
- Rapid and straightforward generation of data to build kinetic models
- Intuitive - straightforward acquisition and processing workflow – makes NMR an accessible PAT tool for all audiences (no NMR experience required!)
- Enables the facile use of NMR data to make strategic process chemistry decisions, ultimately leading to cost savings

Innovation with Integrity

NMR

Acquisition Control

Utilization of Bruker's automation software IconNMR, in conjunction with the new features provided by the cutting-edge InsightMR software, provides seamless interaction between experiment set up and spectrometer control for following dynamic processes. These features include the ability to change parameters on-the-fly and propagate these changes to queued experiments with only a couple of mouse clicks. These changes allow the user to be in full control of the data they are acquiring at all times, providing the best data possible when results count!
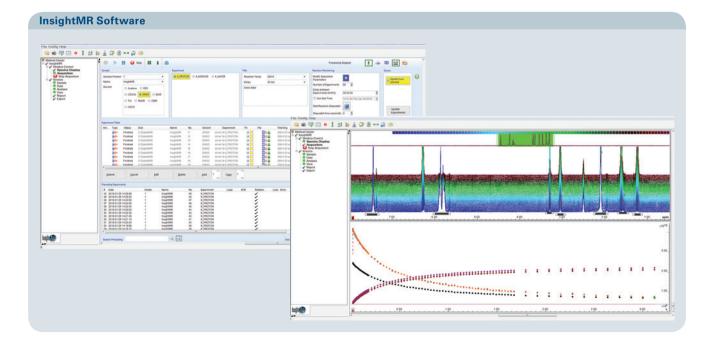
Data Processing and Analysis

The incorporation of Dynamics Center allows myriad post-acquisition options. In addition to robust, powerful analysis algorithms, InsightMR enables automated processing of data in real time. Once the first data set is processed as desired these parameters are propagated to the remaining spectra, enabling real-time display of kinetic build-up curves. Immediate access to these data allows the scientist to make informed decisions about whether any changes need to be made to the chemistry, acquisition, or data processing to get the best results possible.

Interaction between Acquisition and Processing – Facile user control

InsightMR provides a single interface to easily toggle between acquisition control and data analysis. The acquisition control and data processing have been seamlessly integrated allowing the user to quickly make strategic decisions about the acquisition and chemistry experimental parameters.

Features

- A single interface for automated acquisition control, interactive processing and analysis, resulting in real-time kinetic profiles
- Complete workflow from data acquisition to project report with ability to export data in other formats for additional processing
- Acquisition and real-time analysis of a series of 1D NMR spectra, using different nuclei and interleaved experiments
- Default kinetic parameter sets provided, enabling facile experiment set up to monitor processes in deuterated and non-deuterated solvents
- Simultaneous monitoring of multiple reactions at the same time using parallel acquisition and analysis capabilities
- On-the-fly acquisition changes as needed based on real-time data processing and kinetic profile calculations
- Seamless integration with Bruker spectrometers for on-the-fly data analysis
- Supports Windows PC configuration running TopSpin 3.5

InsightMR Software

Bruker BioSpin
InsightMR@bruker.com
www.bruker.com/InsightMR