

### **TD-NMR FOOD ANALYSIS**

## minispec Droplet Size Analyzer 2.0

# New TD-NMR solution for Droplet Size Analysis - Introducing GoScan for minispec and improved data analysis

Innovation with Integrity

The Bruker minispec provides fast and accurate analysis of droplet size distribution, giving manufacturers important information about emulsion stability, control release, and rheological properties.

The droplet size distribution in emulsions of water in oil (and oil in water) influences the taste, smell, appearance, and microbial stability of foods such as margarine, butter, mayonnaise, salad dressing, and soft cheese.

In the cosmetic industry, the droplet size distribution contributes to a better understanding of the relationship between emulsifying process and long-term emulsion stability.

The new Droplet Size Analyzer 2.0 introduces a completely new user interface, GoScan for minispec, with the possibility to characterize multimodal droplet size distribution, and further improve the results for unimodal distributions where a lognormal shape is assumed.

#### **Features**

- Equipped with the G-Var method
- Minimum sample preparation with no sample alteration or dilution
- Validated for both single emulsions (W/O and O/W droplets) and double emulsions (WOW)
- Similar or better precision compared to other analytical techniques such as microscopy, laser diffraction, and electric sensing
- NMR measures droplet size and not cluster size
- Can measure droplet sizes in the range: O/W droplets 0.5-10µm; W/O droplets 1-30µm



Figure 1 GoScan for minispec acquisition window

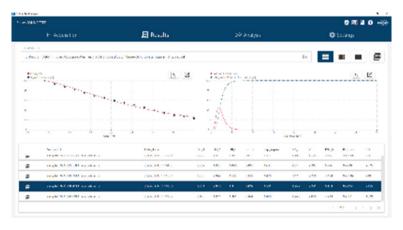


Figure 2 GoScan for minispec results window - Lognormal distribution

### **Benefits**

- Simple and intuitive User Interface GoScan for minispec
- Multimodal Droplet Size Distribution characterization
- Improved characterization of the log
- Normal Droplet Size Distribution
- Lower limit of quantifiable droplet phase (down to 2%)
- Has the lowest cost-of-ownership per measurement of all methods



Figure 3 Perfect butter with perfect droplet size distribtion

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