



# Portable 60 MHz FT Lab NMR

'All-Purpose' NMR Spectrometer for Multiple-Property Measurements  
**Aspect AI-60 – a Multi-Function Lab Solution enabling 60MHz, High-Temperature Analysis for Laboratory and Inline Process Applications**

AI-60 NMR Lab System – Main Features:

- Multi-property analyses with one easy-to-use system - fast, accurate and cost-effective.
- Reaction Monitoring
- Process control / pilot
- High temperature measurements of material properties (up to 90°C)
- Allows for the verification of crude oil integrity throughout shipping and receiving
- Multinuclear Capability ( $^1\text{H}$ ,  $^{13}\text{C}$ ,  $^{31}\text{P}$ ,  $^{19}\text{F}$ , etc.)
- Reproducible Data
- Quantitative Results

**The system comprises four main components:**

1. **AMOS spectrometer** (Digital, fully broadband)
2. **Magnet** (60 MHz  $^1\text{H}$  frequency)
3. **48 channel active shim set** (for unparalleled field homogeneity)
4. **Clean RF chain for optimal sensitivity** (SNR)

**Plus:** other accessories such as VT probe and rheology pump



Aspect's Ai-60 NMR Lab System permanent magnet design requires no cryogenics. The system only requires a standard wall outlet (110/220v) for operation. Samples can be run neat, in conventional protonated solvents, or in deuterated NMR solvents. Probes accept standard 5 mm or 10 mm NMR tubes. Flow cell and variable temperature (up to 90°C) are also available. Complete automation of all NMR tasks (Acquisition, Processing, Integration, Results reporting) enables walk-up applications with minimum user training and/or experience. Spectral processing facilitates the use of a variety of chemometric-based routines for multiple-property measurements.

**What is your application?** Please contact us for a consultation and quotation: [info@aspectimaging.com](mailto:info@aspectimaging.com).

***Get immediate results and instantly improve the profitability and productivity of your lab analysis system with at-line and in-line real-time data measurement.***

**Ai-60 NMR Lab System – Main Advantages:**

- **At-line analysis:**
  - Flow-through capabilities
  - Variable Temperature capability up to 90 °C
- **Provides analysis in dense and opaque materials**
- **Direct Molecular Measurement**
- **Minimal maintenance required (no moving parts in sensor)**
- **Direct and Multi-property analysis**
- **No water removal necessary**
- **Certified for CE, TUV**

**Aspect Ai-60 NMR Lab System capabilities are proven in these applications:**

- **General Purpose Lab Application Development**
  - Academic
  - Industrial Research
- **Petroleum analysis:**
  - Rapid Crude Oil Assay
  - Distillate analysis (naphtha; kerosene; diesel)
  - FCC inlet (HVGO)
  - Lube Oil Analysis
- **Fish Oil production:**
  - Omega 6, Omega 3
- **Pharmaceuticals:**
  - Reaction Monitoring
  - Food and drug adulteration

***The incredible stability of our magnets, the variable temperature range, our broadband capability, and true flow capability (accurate Reaction Monitoring), are ground-breaking features that put Aspect at the forefront of the NMR field.***



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