

QM-125

125 MHz BENCHTOP PROTON NMR SPECTROMETER



At 125 MHz, the revolutionary **QM-125** NMR spectrometer is the highest-field benchtop NMR yet developed. It delivers the best resolving power, mass-sensitivity, and flow-chemistry capability of any benchtop NMR spectrometer.

Key Features

- Highest spectral resolution (125 MHz, ^1H) benchtop NMR spectrometer
- High mass-sensitivity & low-volume detection
- Sample delivery by flow
- Easy walkup injection
- Hyphenation ready
- Light weight & compact
- Cost-effective with high ROI

Highlighted Applications

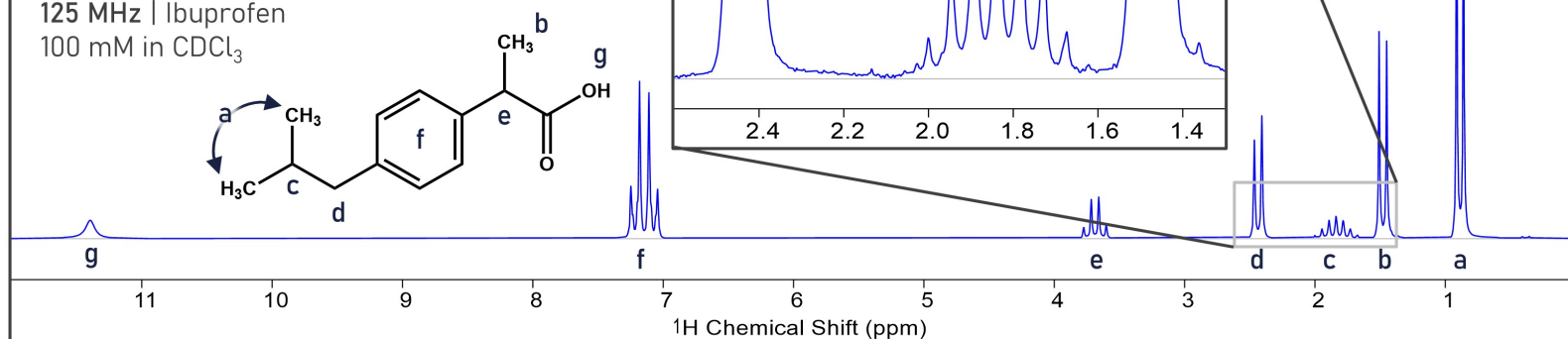
- Small molecule structure verification
- Small-volume samples
- Low-concentration samples
- Reaction monitoring
- Undergraduate teaching labs

The Highest Resolution Benchtop NMR Ever

Highest Benchtop Resolution

At 125 MHz, the QM-125 delivers higher resolution than any other benchtop NMR system ever made.

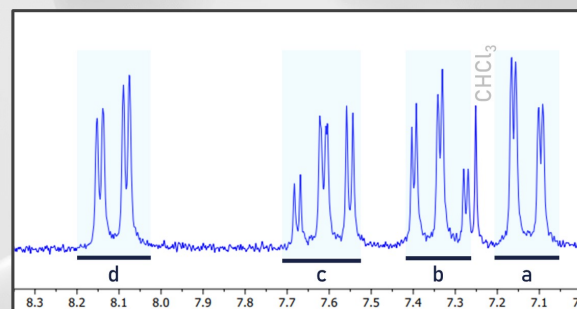
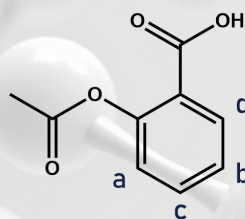
125 MHz | Ibuprofen
100 mM in CDCl₃



Best Spectral Dispersion

Our revolutionary permanent-magnet technology delivers greater spectral dispersion and baseline resolution, allowing for confident assignment of overlapping NMR peaks.

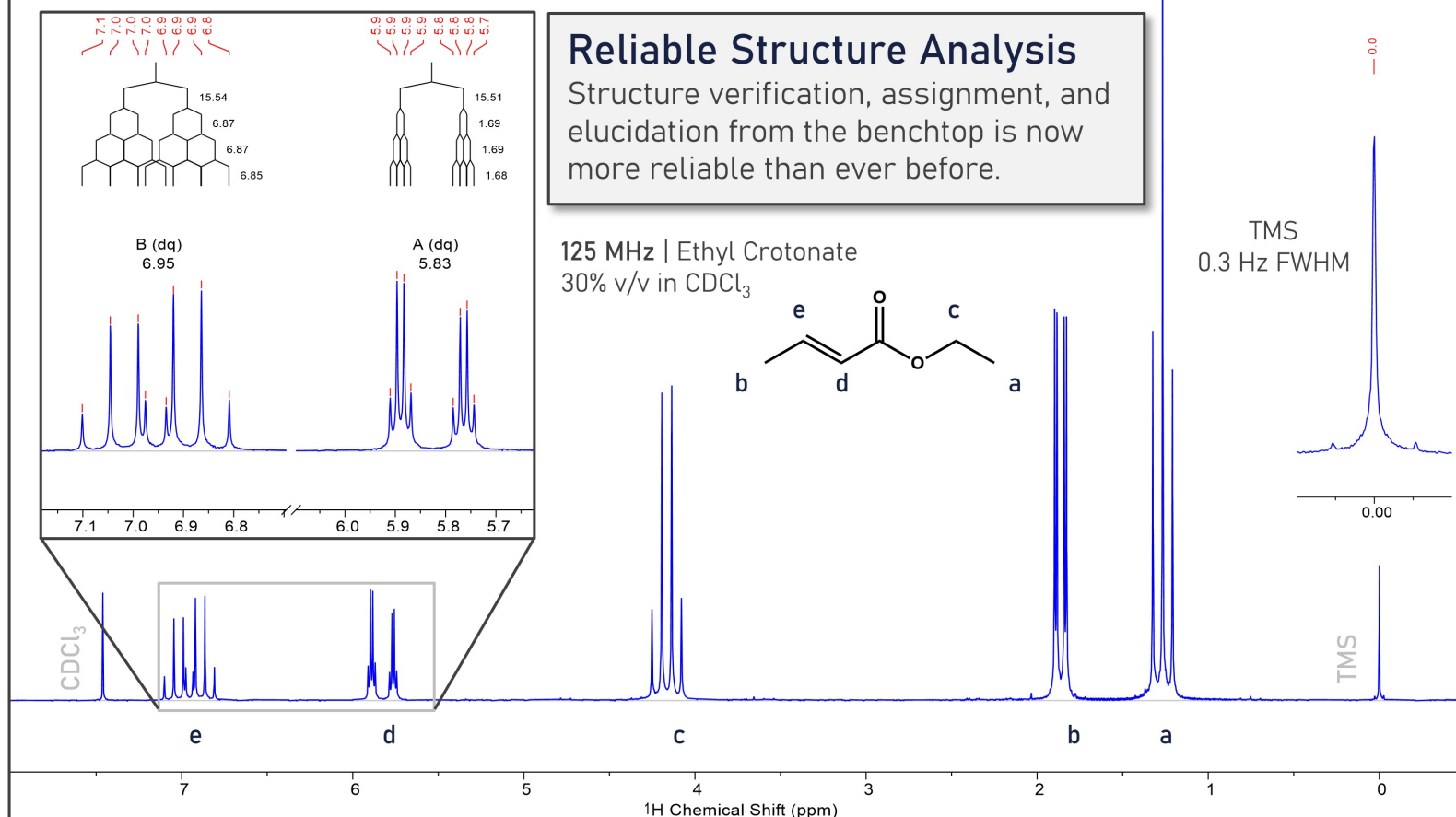
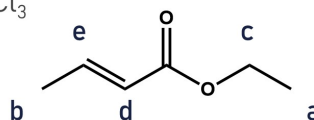
125 MHz | Aspirin
200 mM in CDCl₃



Reliable Structure Analysis

Structure verification, assignment, and elucidation from the benchtop is now more reliable than ever before.

125 MHz | Ethyl Crotonate
30% v/v in CDCl₃

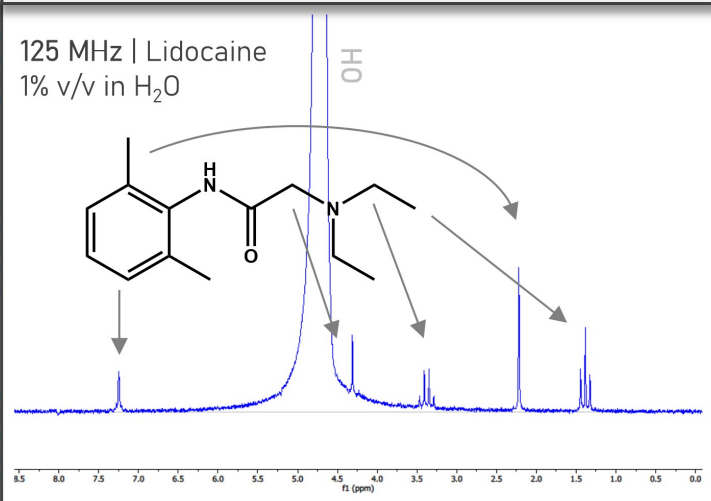


Unmatched Analytical Detection & Integration

Superb Mass-Sensitivity

Detect analyte in sample-limiting conditions, even within the presence of protiated solvents.

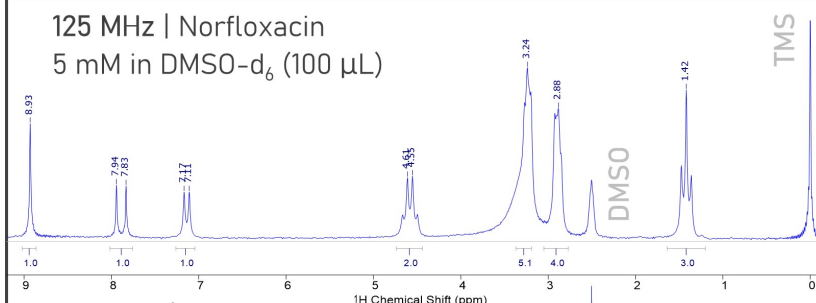
125 MHz | Lidocaine
1% v/v in H₂O



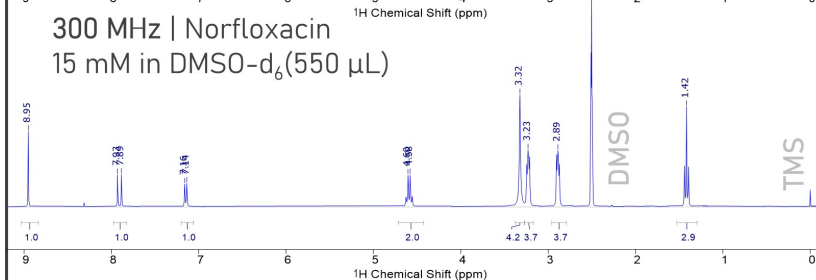
Comparable to High-Field

Acquire data comparable to higher field NMRs even at minimal concentrations and low volumes.

125 MHz | Norfloxacin
5 mM in DMSO-d₆ (100 µL)



300 MHz | Norfloxacin
15 mM in DMSO-d₆ (550 µL)



Convenient Walkup Use

Load sample via direct syringe injection at the benchtop, fume hood, or cart. Collect data within seconds to minutes.



1. Draw
2. Inject
3. Collect

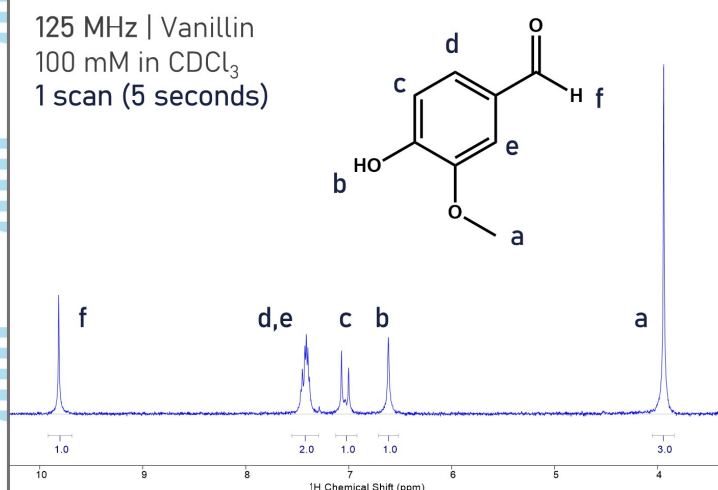
Reaction Monitoring Ready

The QM-125 is designed for flow-chemistry applications or any sample-delivery by flow set up.

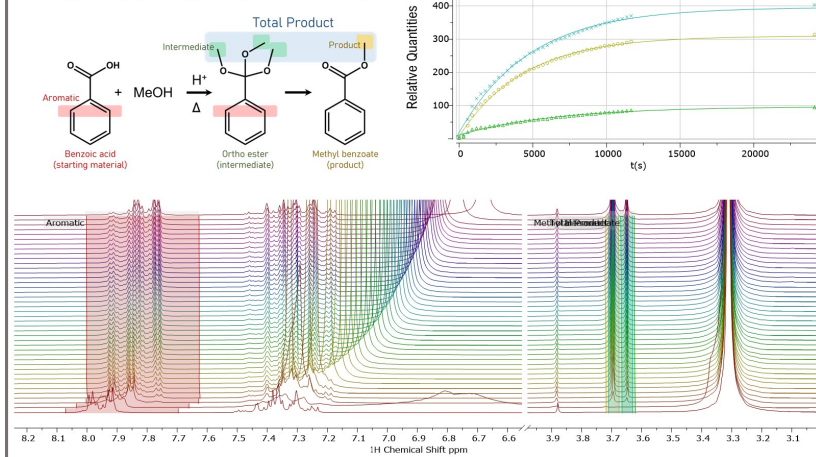


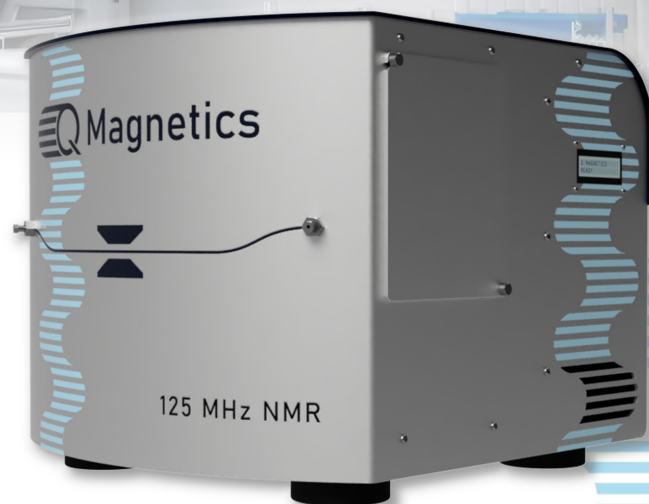
1/16" standard fluid fittings

125 MHz | Vanillin
100 mM in CDCl₃
1 scan (5 seconds)



Fisher Esterification of Benzoic Acid





QM-125 BENCHTOP NMR

The QM-125 is a single-channel, 125 MHz permanent-magnet benchtop proton NMR spectrometer designed for high-performance, hyphenation, and ease of accessibility at the lowest cost per MHz of any NMR spectrometer.

TECHNICAL SPECIFICATIONS

Operating frequency: 125 ± 2 MHz (^1H)
Field strength: 2.94 Tesla
Sample tube volume: 0.36 mL
Sample tube ID: 1.0 mm
Minimum sample volume: 5 μL
Operating temperature: 28–32 °C
Front panel fluid fittings: 1/16" standard
Weight: 62 lbs. (28 kg)
Dimensions: 37 × 34 × 30 cm
15.5 × 13.4 × 11.8 in
Data Interface: USB 3
Power Supply: 110–240 V
50–60 Hz

RESOLUTION & SENSITIVITY

Linewidths
< 0.55 Hz at 50% (FWHM)

Signal to Noise
S/N > 2500 (CHCl_3)
S/N > 12 (1% EtBz)

Limit of Detection
26 nmol at 5 μL (min.
sample volume)



Additional Features

- QM Control software program
- 1-Year Mestrelab Mnova NMR license
- Open-source with APIs for low-level functionality controllable via Python
- Virtually zero maintenance
- No cryogenics or spinning

Installation, Support & Warranty

- Virtually guided remote installation
- Remote troubleshooting, support, and training from our highly experienced staff
- Industry-Standard 1-Year Parts & Labor Warranty (included)
- Extended warranties offered per-year basis

Visit our website to request a quote, demo, and learn about the QM-125!

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