

Spinsolve 100

High field NMR power on your bench



100 MHz Performance. Benchtop Simplicity

- 100 MHz ^1H frequency
- Highest sensitivity: > **400:1** for 1% Ethyl Benzene
- Highest resolution: 50/0.55/0.11% < **0.2/8/16 Hz**
- Auto-tuned broadband multi-nuclear probe
- Benchtop footprint and weight
- Available with 80 positions sample changer
- On-line reaction monitoring directly in the fume hood

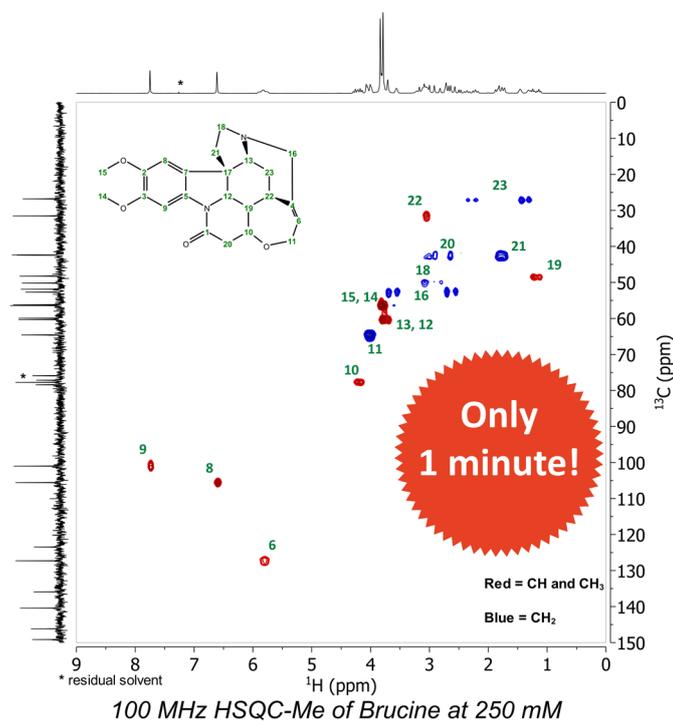
Instant results for immediate decisions

Eliminate time-consuming sample preparation to significantly speed up your workflow. Discover the power of our new solvent suppression methods to measure samples in their original solvents while delivering high-quality spectra.

Multi-nuclear high throughput analysis

The Multi Xn probe combined with the Spinsolve autosampler enables fully unattended multi-nuclear analysis with assured optimum performance.

The most powerful structural analysis...
...in just one minute!

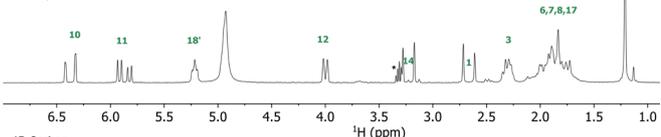


Fast and powerful, advanced multi-nuclear methods for structure confirmation

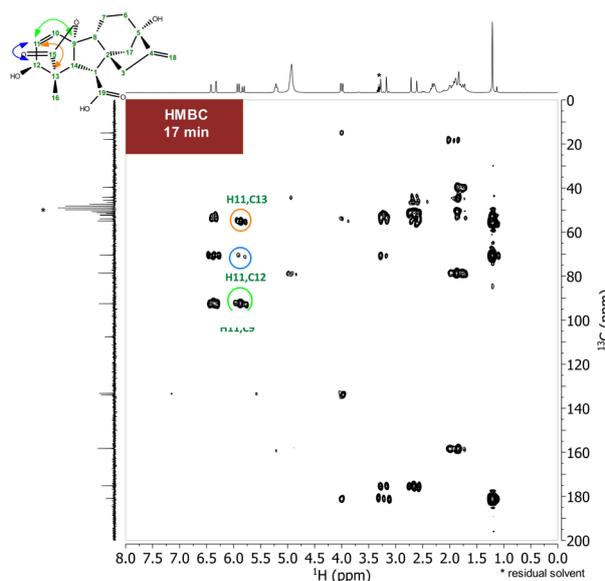
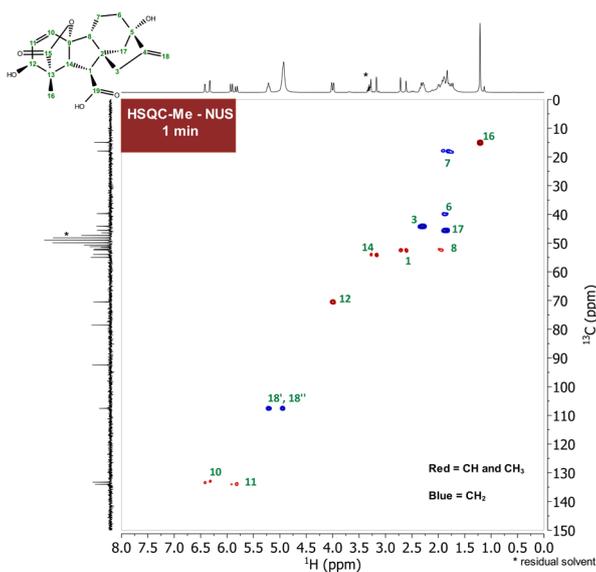
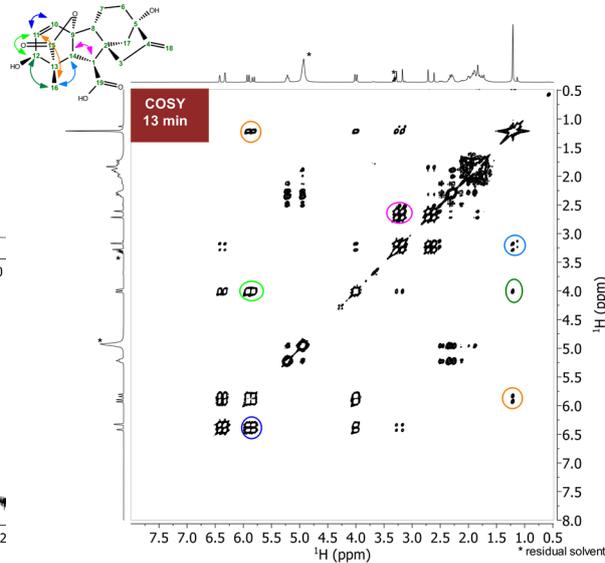
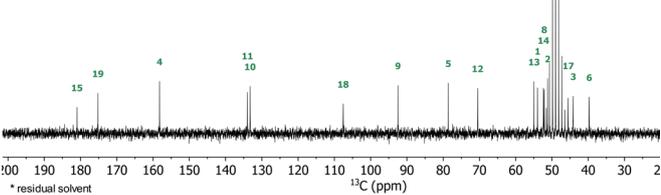
100 MHz NMR spectra of Gibberelic acid at 250 mMolar concentration

Gibberelic acid
Solvent = MeOH-d₄
Concentration = 250 mM

1D Proton
Frequency = 100 MHz
Number of scans = 1
Total experimental time = 10 s



1D Carbon
Frequency = 25 MHz
Number of scans = 750
Repetition time = 3 s
Pulse angle = 45°
Total experimental time = 37.5 min



The Spinsolve 100 is fully compatible with our autotuned Multi Xⁿ family of probes.

NEW

Spinsolve Multi Xⁿ

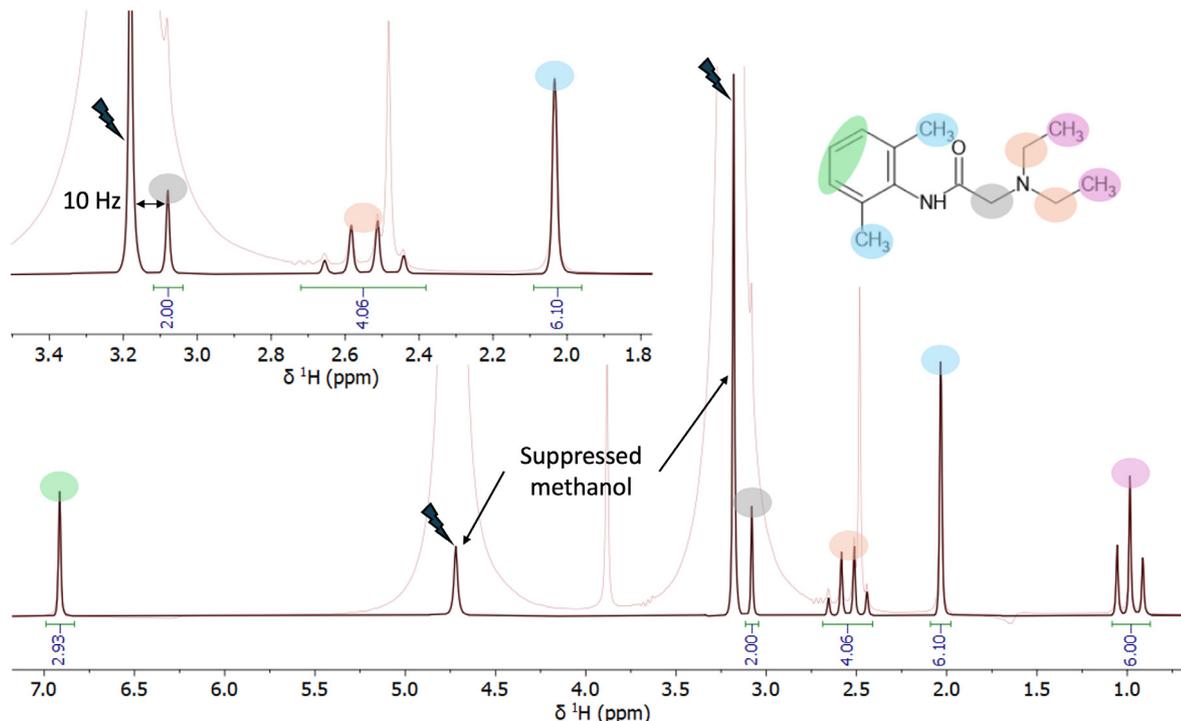
The next Generation of fully automated multi-nuclear NMR

Add All the nuclei You Need, without compromising performance



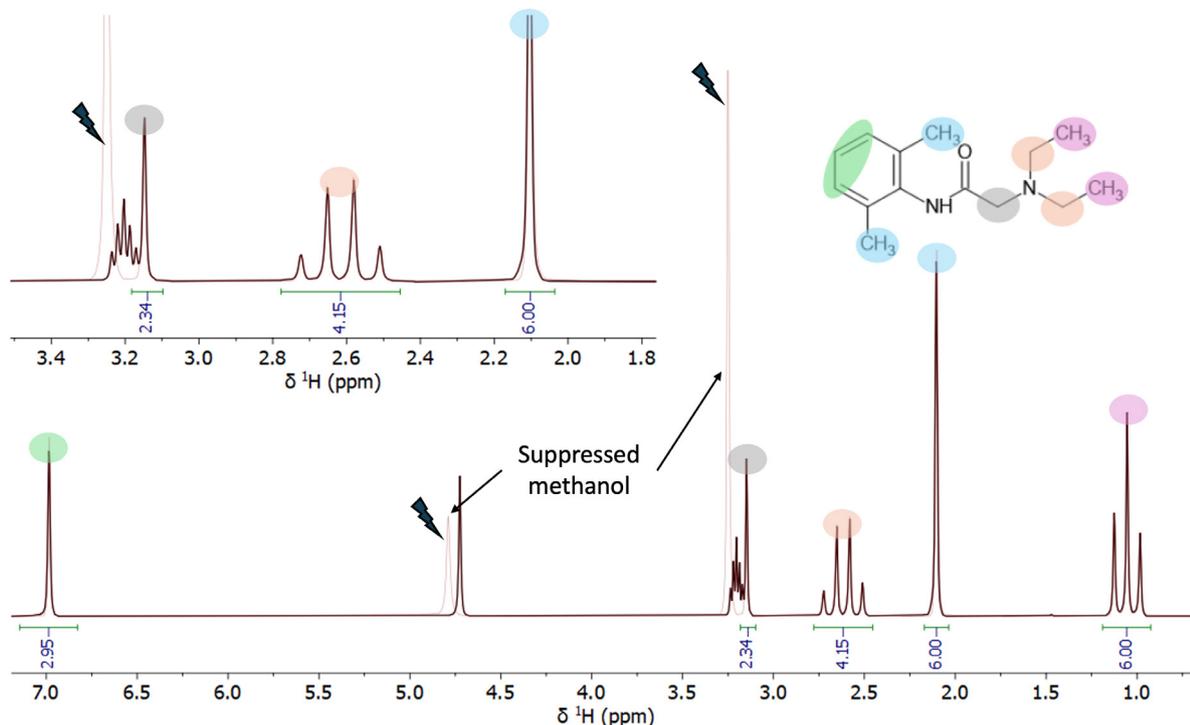
Discover the power of the solvent suppression methods

Measure your samples in regular protonated solvents with the accuracy obtained with deuterated solvents. By eliminating the sample work up required to exchange solvents, measurements can be done during your synthesis in just a few seconds. This is changing how NMR spectroscopy is being used in the chemistry lab for fast sample analysis.



Spectra of Lidocaine (50 mMolar) in protonated methanol. The spectrum was acquired in one minute using a WET solvent suppression sequence targeting the two methanol signals. This highly selective suppression enables the lidocaine peak at 3.1 ppm—which fully overlaps with methanol in a standard 1D spectrum (light red)—to be baseline resolved and accurately integrated.

How does the solvent suppression compare with deuterated solvent?



In the spectrum of lidocaine sample prepared in deuterated methanol, the intensity of the residual solvent signals is comparable to those of the residual signals of the protonated methanol in the solvent-suppressed spectrum (red trace). The inset shows the overlap of the multiplet from CH₃ group of deuterated methanol and the lidocaine signal at 3.1 ppm. The solvent-suppressed spectrum enables more accurate integration of this lidocaine signal.

Spinsolve 100



Specifications

- Operating frequency: 100 MHz (¹H)
- Nuclei: ¹H, ¹⁹F, ¹³C, ³¹P, ⁷Li, ¹¹B, ²⁹Si, ¹²⁹Xe, ²D, ¹⁵N, and more
- ¹H Linewidth Classic: 50 / 0.55 / 0.11% < 0.35 / 15 / 30 Hz
ULTRA: 50 / 0.55 / 0.11% < 0.20 / 8 / 16 Hz
- ¹H Sensitivity single channel: > 400:1 for 1% Ethyl Benzene
dual channel : > 300:1 for 1% Ethyl Benzene
- Operating Temperature Range: **14° C to 28° C** (57° F to 82° F)
- Dimensions: 66 x 45 x 43 cm (26" x 18" x 17")
- Weight: 119 kg (265 lb)
- Stray Field: < 2 G all around the enclosure
- Voltage Requirement: 100-240 VAC, 50/60 Hz
- Available with automatic sample changer
- Compatible with the reaction monitoring kit
- 3D pulsed field gradients optimized for modern pulse sequences
- Optional diffusion PFG > 0.5 T/m
- No cryogenes
- 5 mm standard NMR tubes
- No sample spinning required



Pulse sequences available on the Spinsolve 100

Proton	Fluorine	Carbon
1D with ¹⁹ F and X-nucleus decoupling	1D Fluorine with ¹ H decoupling	1D Carbon with ¹ H and ¹⁹ F decoupling
1D paramagnetic	2D F - COSY	DEPT
2D COSY*, JRES, TOCSY, and ROESY	2D F - JRES	APT
1D solvent suppression (Presat and WET)	2D FH - COSY	HETCOR
1D solvent suppression with T ₂ filter	T ₁ , T ₂	gs-HSQC
2D COSY-WET, HSQC-WET	PFG-DOSY	gs-HSQC-me*
T ₁ , T ₂	Reaction Monitoring	gs-HMQC
PFG-DOSY		gs-HMBC*
Reaction Monitoring		gs-NOAH*

All sequences are gradient assisted (gs). Other sequences available. *Non-Uniform Sampling (NUS) available

Contact us now for a quote, to request a demo or to measure your samples

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