Spinsolve™ 60
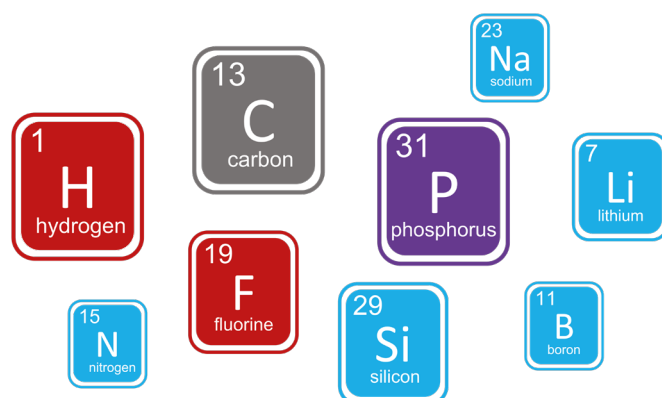
Unmatched Performance Meets Unbeatable Affordability

Premium performance at a price that makes best-in-class NMR accessible to everyone

Outstanding Features

- 60 MHz ^{1}H frequency
- High sensitivity:

    single channel: > **200**:1 for 1% Ethyl Benzene

    dual channel : > 130:1 for 1% Ethyl Benzene

- High resolution:

    Classic: 50 / 0.55 % < 0.50 / 20 Hz

    Plus: 50 / 0.55 % < 0.35 / 10 Hz

    ULTRA: 50 / 0.55 / 0.11% < 0.20 / 7 / 14 Hz

- 5 mm standard NMR tubes
- No sample spinning required
- Advanced methods like COSY, HSQC-ME, HMBC, NOAH, NUS (all gradient assisted)
- Benchtop footprint and weight
- No cryogens
- Available with automatic sample changer
- On-line reaction monitoring

NEW broadband autotunable Multi-X Probe

Measure multiple nuclei in a fully automatic way without requiring any user intervention and preserving full calibrations of all channels
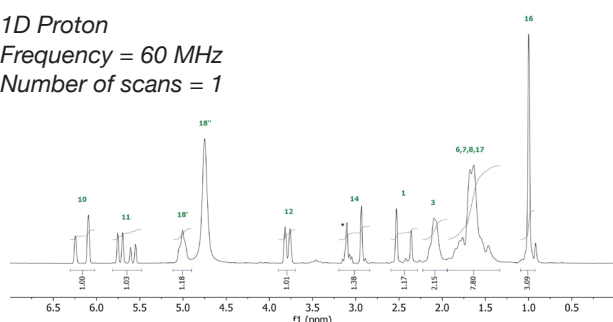
Fast and powerful, advanced multi-nuclear methods for structure confirmation

60 MHz NMR spectra of Gibberelic acid at 250 mMolar concentration
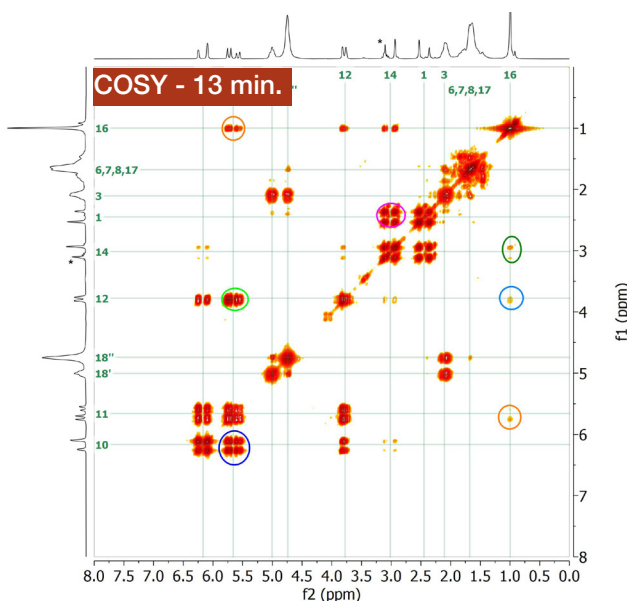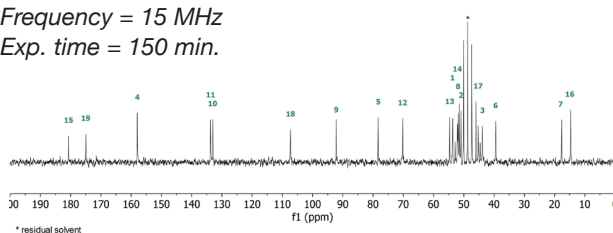

1D Proton
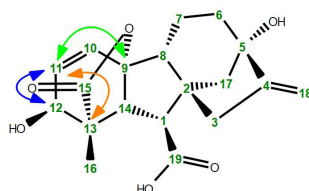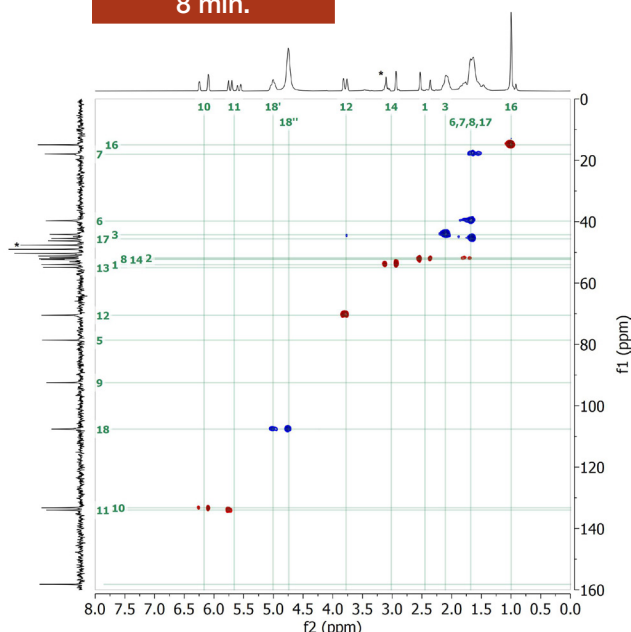*Frequency = 60 MHz*
Number of scans = 1

1D Carbon
Frequency = 15 MHz
Exp. time = 150 min.

* residual solvent
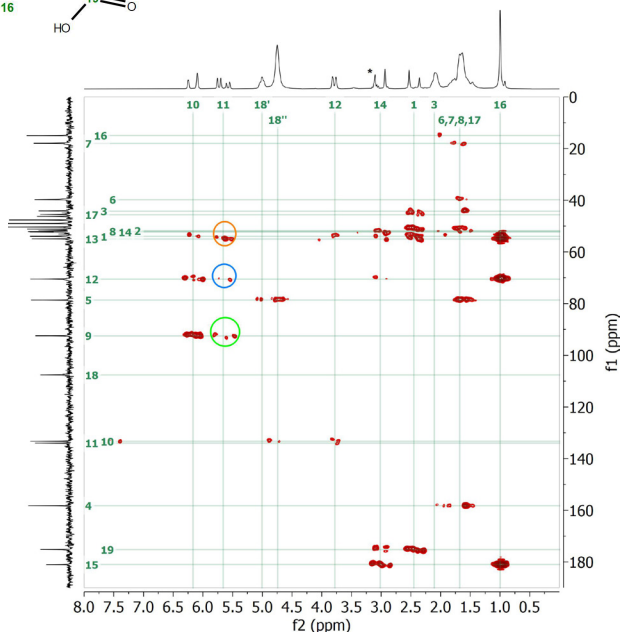
The HSQC is a powerful sequence widely used to correlate ^1H with the one-bond coupled ^{13}C nuclei, respectivelly. The Spinsolve is equipped with a multiplicity edited version (HSQC-ME) of this method. It provides the editing power of the DEPT-135 sequence, which is useful to differentiate the signals of CH_2 groups (blue) from CH and CH_3 groups (red). To obtain long-range ^1H-^{13}C correlations through two or three bond couplings, the Heteronuclear Multiple Bond Correlation (HMBC) experiment can be used. As an example, we show below the long-range correlations of proton 11 with carbons 13 (orange), 12 (blue) and 9 (green) are marked with circles. The experiment shows the correlation with quaternary carbons, too.
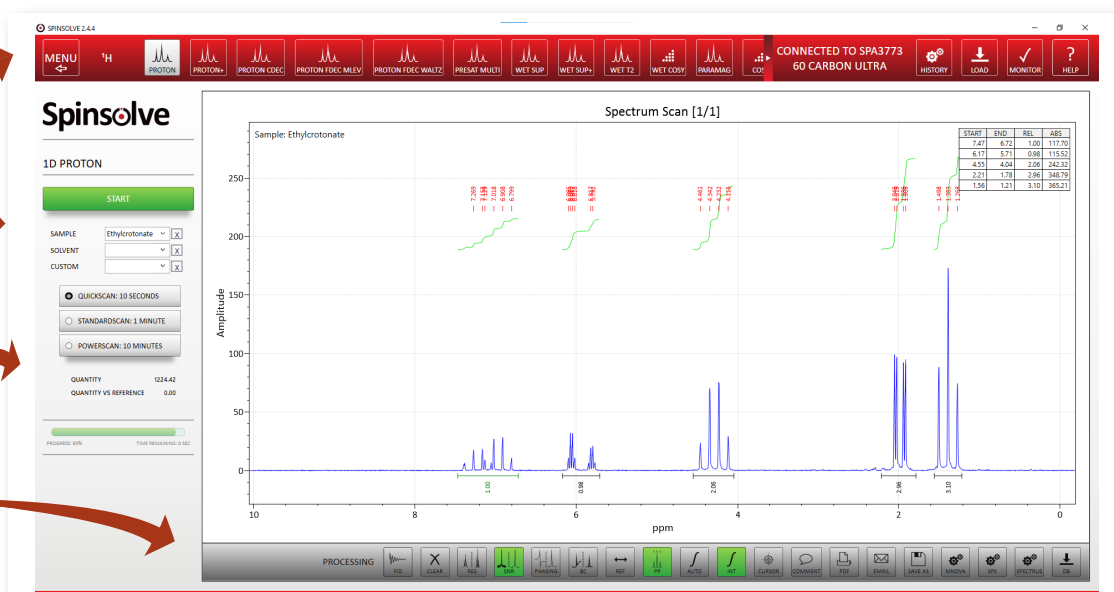
Software

The Spinsolve software is beautifully simple and easy to use, with a clean and intuitive user interface.

Easy experiment selection in the upper menu
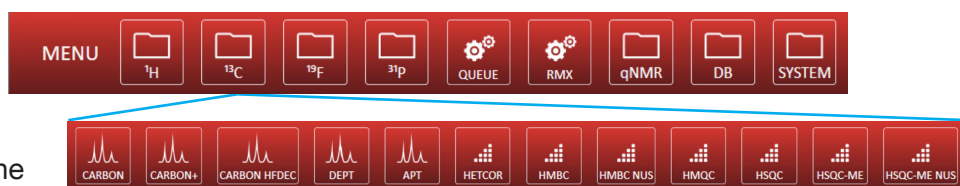
Single button start

Progress bar
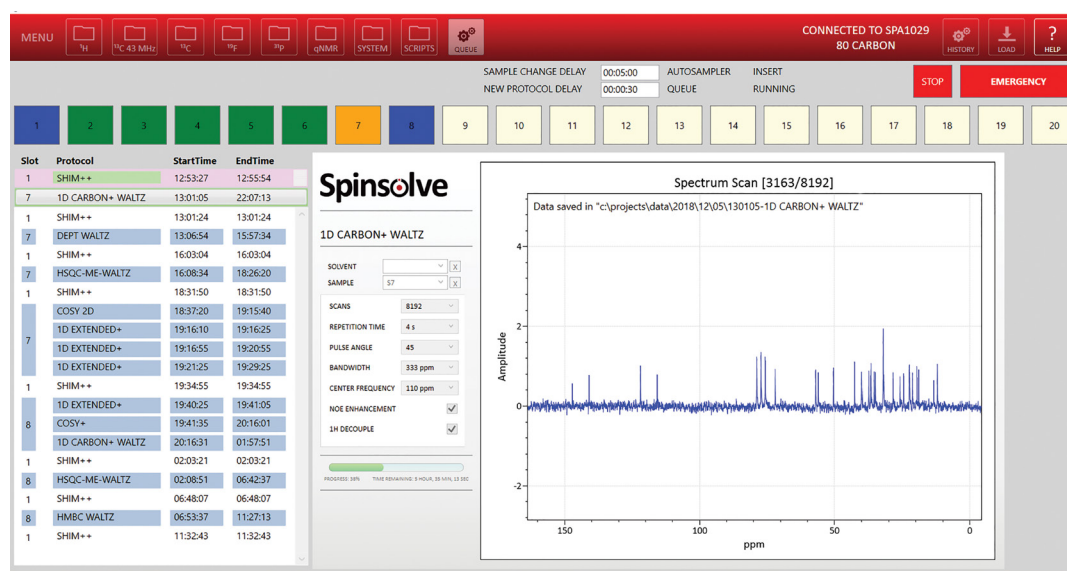
One-click processing buttons

Simple menu structure

1. Click to choose nucleus
2. Click to choose experiment
3. Click Start (watch status on the progress bar)
4. Click any processing you wish to apply

Full Automation

Increase your sample measurement throughput by integrating the new fully automated autosampler carousel with your Spinsolve. The autosampler fits directly on the top of the Spinsolve and can easily be added or removed for transportation. The queue of protocols to be run for each sample can be entered in just a few seconds and it can be edited by the user at any time, even while data is being collected.
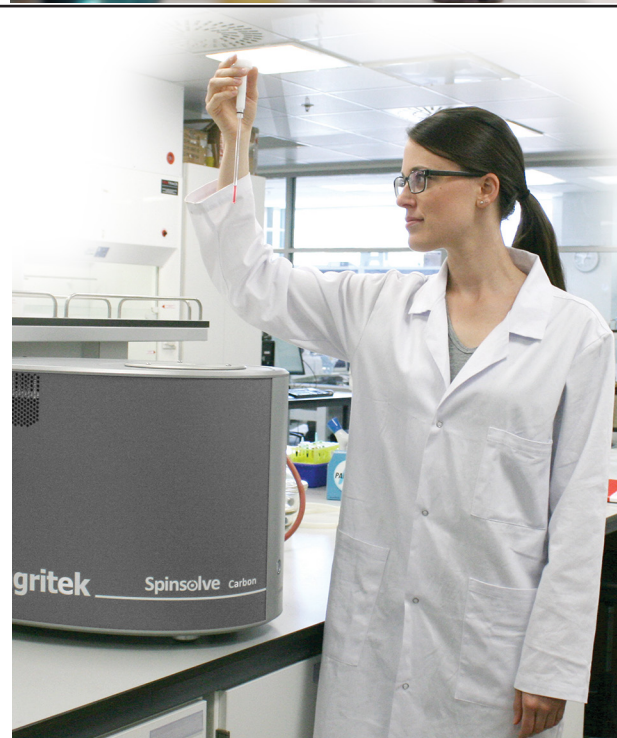
Spinsolve™ 60

Specifications

- Operating frequency: 60 MHz (^{1}H)
- Nuclei: ^{1}H, ^{19}F, ^{13}C, ^{31}P, ^{7}Li, ^{11}B, ^{29}Si, ^{129}Xe, ^{2}D, ^{15}N (more available)
- ^{1}H Linewidth Classic: 50 / 0.55 % < 0.50 / 20 Hz
  Plus: 50 / 0.55 % < 0.35 / 10 Hz
  ULTRA: 50 / 0.55 / 0.11% < 0.2 / 7 / 14 Hz
- ^{1}H Sensitivity single channel: >**200**:1 for 1% Ethyl Benzene
  dual channel : >130:1 for 1% Ethyl Benzene
- Operating Temperature Range: 18° C to 28° C (65° F to 82° F)
- Dimensions: 58 x 43 x 40 cm   (23" x 17" x16")
- Weight: 60 kg (132 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

Pulse sequences available on the Spinsolve 60

Proton	Fluorine	Carbon
1D with ^{19}F and ^{13}C decoupling	1D Fluorine with ^{1}H decoupling	1D Carbon with ^{1}H and ^{19}F decoupling
1D paramagnetic	2D F - COSY	DEPT
2D gs-COSY*, gs-JRES	2D F - JRES	APT
2D gs-TOCSY, and gs-ROESY	2D FH - COSY	HETCOR
1D solvent suppression (Presat and WET)	T_1, T_2	gs-HSQC
1D solvent suppression with T_2 filter	PFG-DOSY	gs-HSQC-ME*
2D gs-COSY with solvent suppression	Reaction Monitoring	gs-HMQC
T_1, T_2		gs-HMBC*
PFG-DOSY		gs-NOAH*
Reaction Monitoring		*Non-Uniform Sampling (NUS) available

Other sequences available, contact Magritek for details.

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

Email: sales@magritek.com

Website: www.magritek.com/contact-us

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