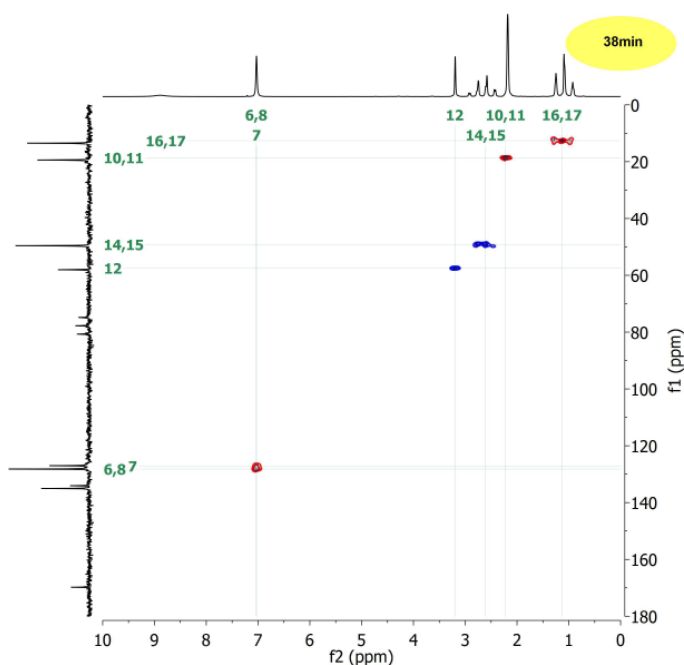


# Spinsolve Carbon

## Carbon-13 benchtop NMR

For organic chemists  $^{13}\text{C}$  NMR forms the backbone of routine molecular analysis. Spinsolve Carbon has outstanding resolution and a high sensitivity that enables the power of proton-carbon NMR in a benchtop instrument. This spectrometer is the most flexible and cost effective way to get carbon-13 NMR in your laboratory.



HSQC-ME spectrum of lidocaine



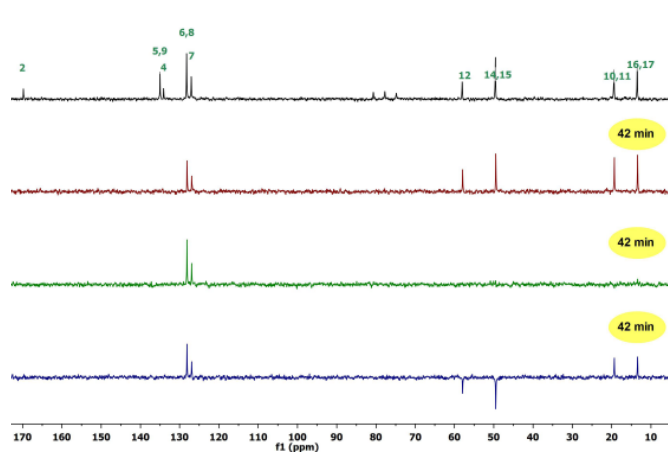
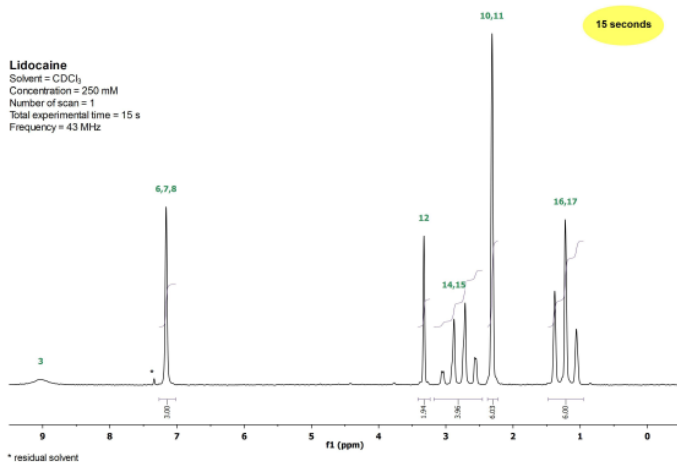
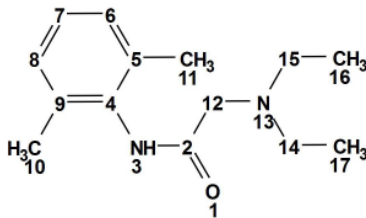
### Who

- Organic Chemists
- Small Molecule Research Scientists
- Academics running practical laboratory classes
- Medicinal and Pharmaceutical Chemists
- Synthetic Chemists monitoring reactions
- Post Graduate Chemistry Students

### Why

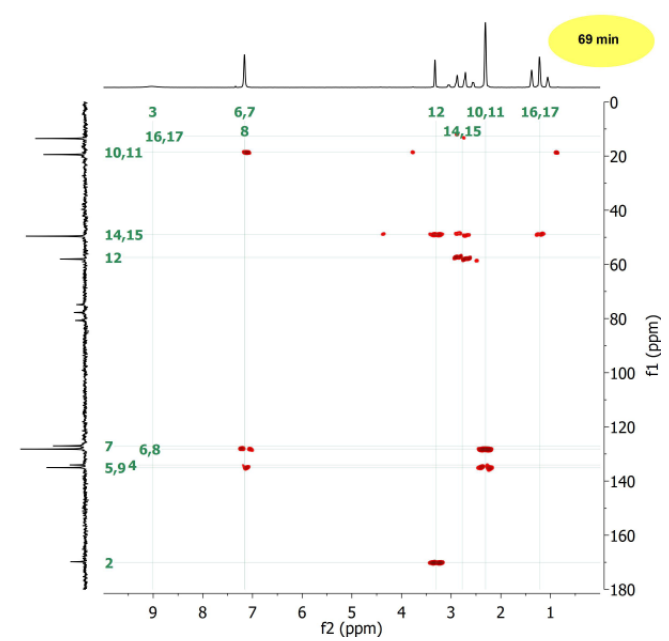
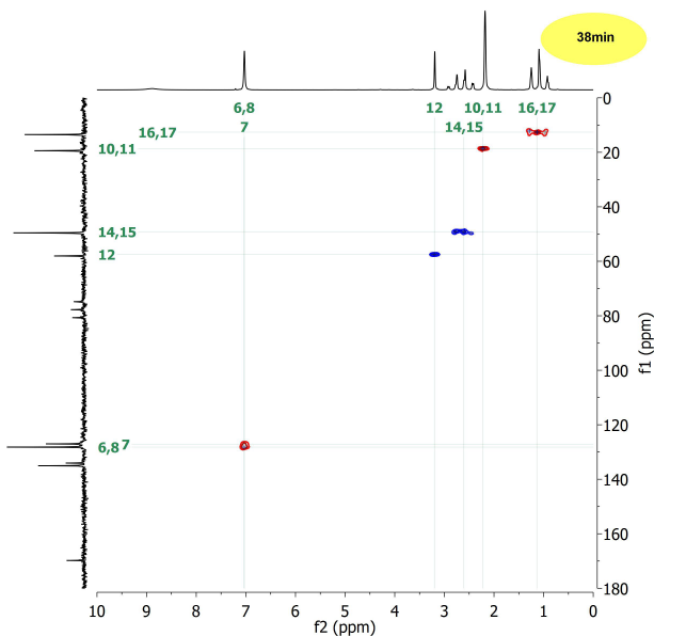
- No cryogenics
- Fast
- Convenient
- Low cost
- Accessible
- Robust
- Low maintenance
- Easy to operate
- Exceptional performance

# Example NMR Spectra of Lidocaine using Spinsolve Carbon



1D Proton with peak assignments.

1D Carbon shows peaks of all carbons (top). Spectral editing using DEPT selects signals of CH<sub>3</sub>, CH<sub>2</sub> and CH groups (rows 2-4)



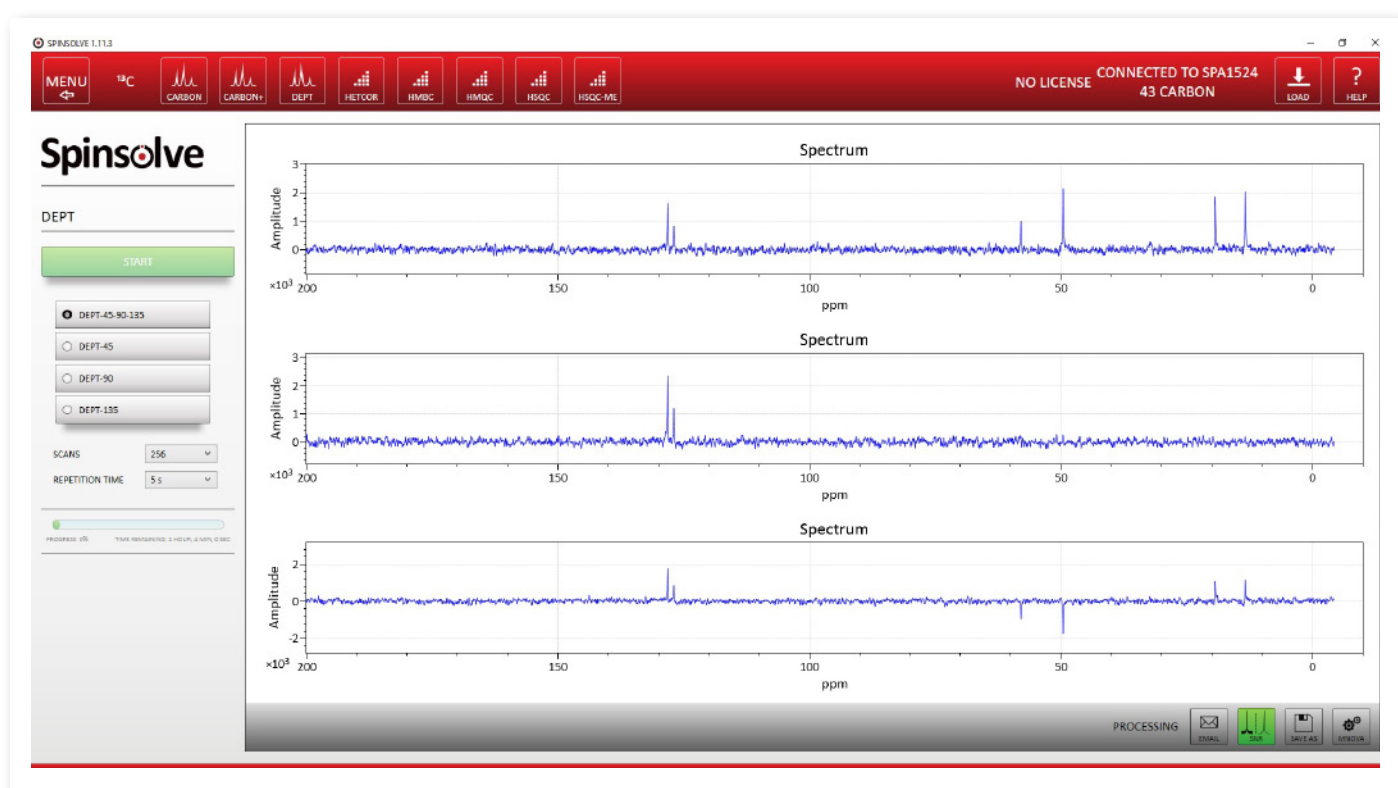
2D HSQC-ME shows single-bond proton-carbon correlations.

2D HMBC shows long-range proton-carbon correlations.

# Software

## The power of simplicity

- Uncomplicated one-button operation
- Simple intuitive graphical interface
- Automated and easy to use
- Minimal user controlled parameters
- Traditional NMR complexities are hidden



DEPT-45, DEPT-90, and DEPT-135 spectra of 1 M lidocaine in d-chloroform.

## Features

- 1D <sup>1</sup>H, <sup>19</sup>F and <sup>13</sup>C experiments
- Standard 5 mm NMR tubes
- 2D COSY and homonuclear j-resolved spectroscopy
- T<sub>1</sub> and T<sub>2</sub> relaxation experiments
- Spectral editing with DEPT
- Composite pulse decoupling
- 2D heteronuclear correlation experiments HETCOR, HMQC, HMBC

# Spinsolve Carbon



## Specifications

- Frequency: 43 MHz Proton, 10.8 MHz Carbon
- Resolution: 50% linewidth < 0.5 Hz (12 ppb)
- Lineshape: 0.55% linewidth < 20 Hz
- Hardware lock (does not require deuterated solvent)
- Dimensions: 58 x 43 x 40 cm
- Weight: 55 kg
- Magnet: Permanent and cryogen free
- Stray field: < 2 G all around system



## Other Spinsolve products

### Spinsolve for education



- 1D Proton only system
- Budget friendly price
- Upgradeable

### Spinsolve



- $^1\text{H}$  and  $^{19}\text{F}$  nuclei
- Relaxation time experiments
- 2D COSY and JRES
- Reaction monitoring

*“Now the students are able to acquire their own NMR spectra as well as carry out the analysis of the compounds they have made. This makes their undergraduate experiment more applicable to both research and industry settings and increases their enthusiasm for Chemistry.”*

Professor Frances Separovic, Head of Chemistry, University of Melbourne

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

Email: [sales@magritek.com](mailto:sales@magritek.com)

Website: [www.magritek.com/contact-us](http://www.magritek.com/contact-us)

GERMANY +49 241 9278 7270

UNITED KINGDOM +44 7468 529 615

UNITED STATES +1 855 667 6835

NEW ZEALAND +64 4 477 7096

For a complete listing of our global offices and distributors visit: [www.magritek.com/about-us/distributors/](http://www.magritek.com/about-us/distributors/)