Lab-Tools' NMR Spectrometers

Lab-Tools
http://www.lab-tools.com

Description

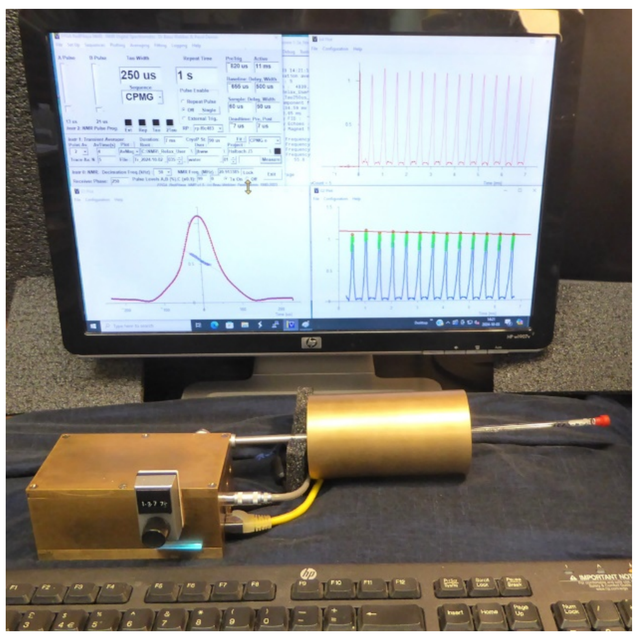
Lab-Tools offers advanced NMR spectrometers that are compact, affordable, and versatile.

Why Choose Lab-Tools?

- Our spectrometers are exceptionally compact, cost-effective, and ideal for equipping individual research students or projects.
- Online and off-line multi-component time-domain NMR relaxation fitting.
- Optional NMR Cryoporometer for thermodynamic measurements of nano- to micro-pore size distributions.
- Spectral data compatible with Online tools.
- Unmatched affordability - high performance at a fraction of the cost of traditional systems.

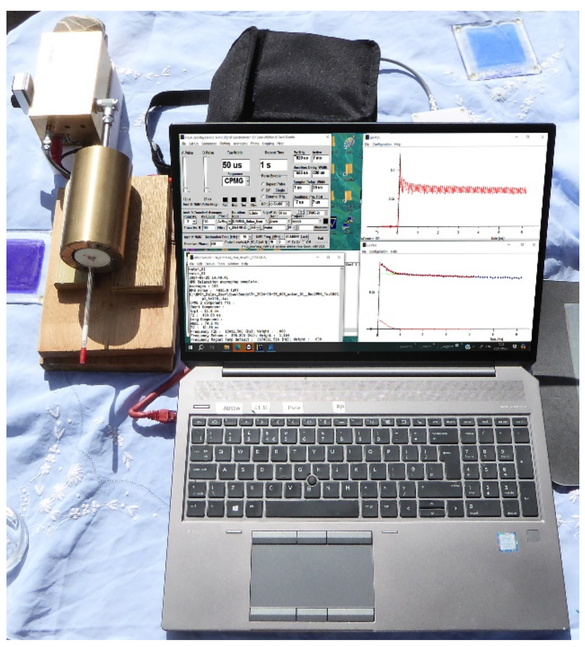
Specifications

- MK4 Model: Operates from 0.2 MHz to 50 MHz.
- MK5 Model: Extends capabilities from 0.2 MHz to 120 MHz.
- Pulse Sequence Standards: includes T1, T2, and long-pulse T1rho spin-locking for comprehensive analysis.



Field-portable version

Field-portable version with eight hour regulated power supply:



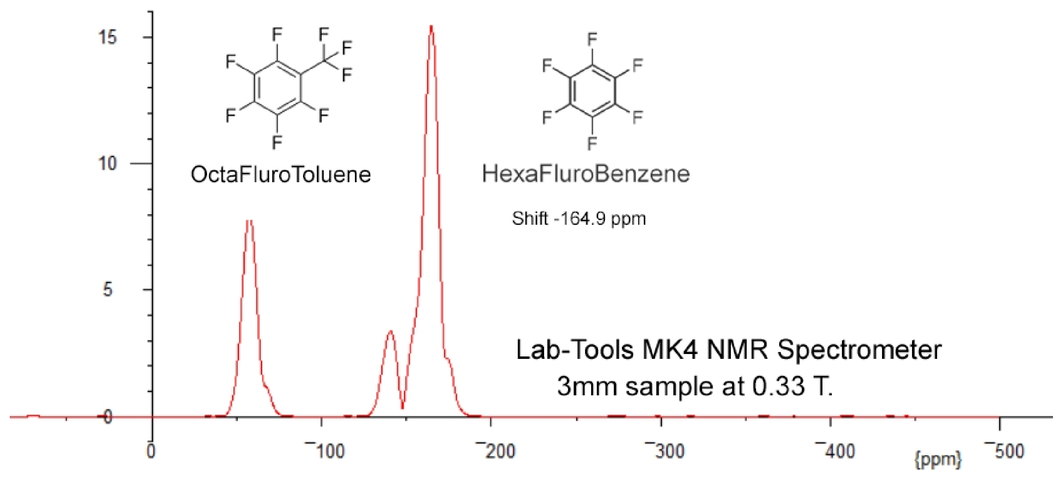
Applications

- Quantified Measurement of hydrocarbon and polymer relaxation components in the bulk and in pores.
- This time-domain NMR spectrometer can be used to study solids such as polymers and porous materials.
- This gives data on sample component masses and molecular movement of the atoms and molecules, which lead to qualities which are variously described as ***mobility, dynamics, stiffness, viscosity or rigidity***.
- Enables amorphous and crystalline components in polymers to be distinguished.

Multinuclear capability

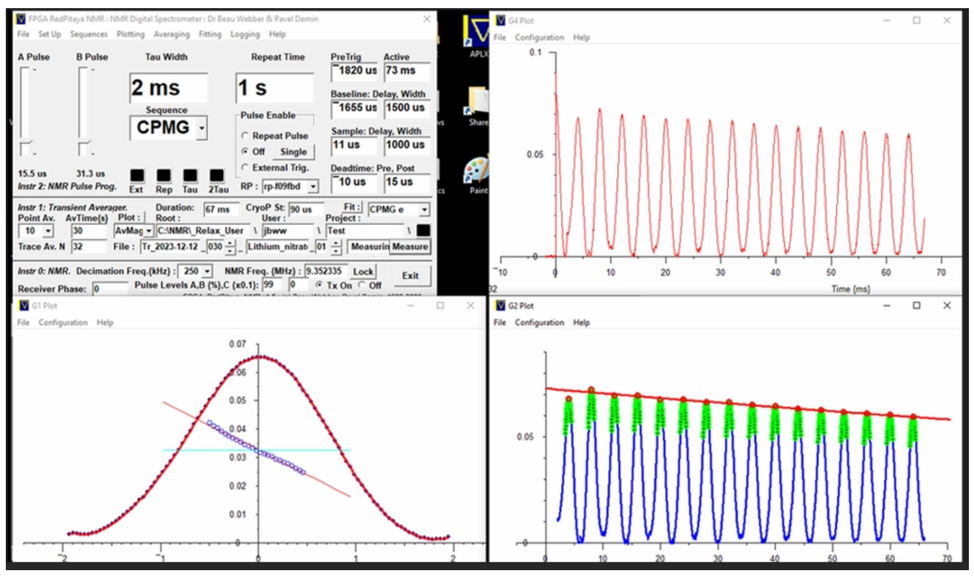
Hydrogen : ^{1}H, Fluorine : ^{19}F, Lithium : ^{7}Li, Sodium : ^{23}Na, Boron : ^{11}B, Phosphorous : ^{31}P.

^{19}F spectral resolution



Acquisition Software

^{7}Li chain of NMR echoes with CPMG pulse sequence:



Optional choice of three NMR Magnets

Left: 0.3 T 36 mm bore Mandhalas; **Middle:** 0.5 T 40 mm bore Halbach;
Right: 0.33 T 55 mm bore shimmed Halbach;

Further information and ordering

See `http://www.lab-tools.com/nmrspectrometer/`
Email: nmr@lab-tools.com | Tel: +44 (0) 7805 437 241