BENCHTOP NMR FOR ACADEMIC RESEARCH

Fourier 80 Multi-Talent
Versatile. Innovative. Robust.

Benchtop NMR for Academia: Multinuclear Power Meets Research Versatility

Innovation with Integrity

The Fourier 80 Multi-Talent redefines accessibility and performance in low-field NMR spectroscopy, bringing powerful multinuclear capabilities directly to the benchtop. Tailored for academic researchers, this compact yet robust system enables seamless analysis of protons and 15 X-nuclei - including key elements such as ^{13}C, ^{15}N, ^{19}F, ^{31}P, and ^{29}Si - all without manual tuning & matching or specialized expertise. With a one-touch experiment setup, users can rapidly switch between nuclei and applications, making it ideal for structural elucidation of organic compounds, polymer characterization, and real-time reaction monitoring.

What you Gain:

- Analyze protons and 15 preset X-nuclei: (^{2}H, ^{7}Li, ^{11}B, ^{13}C, ^{15}N, ^{19}F, ^{23}Na, ^{27}Al, ^{29}Si, ^{31}P, ^{51}V, ^{77}Se, ^{79}Br, ^{119}Sn, ^{129}Xe)
- Effortless nuclei selection – no manual tuning or matching required
- Full access to TopSpin's capabilities, including the comprehensive 1D and 2D NMR experiment library, along with automation software compatible with walk-up workflows via iconNMR or GoScan

Performance at a Glance

- **Versatile Research** – One system for diverse academic applications
- **Simplified Use** – Designed for students and experienced researchers alike
- **Reliable Insights** – High-quality data for confident scientific conclusions

Ready to simplify your analysis?

Real-World Research, Real-Time Results

From undergraduate education to advanced interdisciplinary research, the Fourier 80 Multi-Talent empowers academic institutions to perform high-quality NMR analysis directly at the bench. Its automated, multinuclear capabilities simplify complex workflows and support a wide range of applications – from synthetic chemistry and materials science to pharmaceutical and battery research. Whether used in teaching labs or advanced academic research, the Fourier 80 Multi-Talent delivers actionable insights with unmatched ease and flexibility.

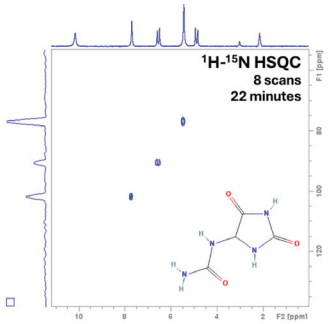

Figure 1: ^{1}H-^{15}N HSQC of 0.38 M Allantoin in DMSO-d_6

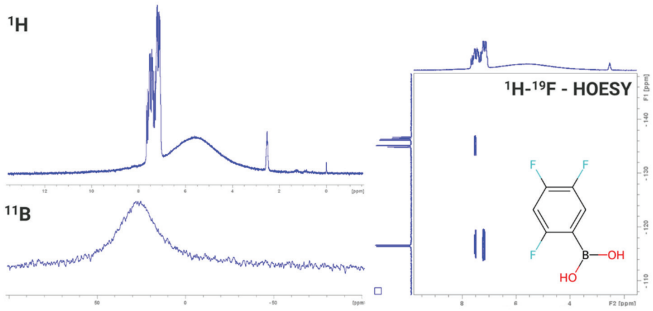

Figure 2: ^{1}H, ^{11}B, and ^{1}H-^{19}F HOESY NMR spectra of 0.44 M 2,3,5-Trifluorophenylboronic acid in DMSO/TMS acquired on the Fourier 80 Multi-Talent

Undergraduate & Graduate Education

- Introduce students to real-world NMR techniques with minimal setup
- Hands-on learning enabling students to perform real NMR experiments directly at the bench

Academic Research

- Perform detailed structural analysis in chemistry, materials science, and life sciences
- Support high-impact research with advanced multinuclear versatility

Collaborative Projects & Interdisciplinary Labs

- Adaptable to diverse research needs – from pharmaceuticals to battery materials
- Streamline shared instrument usage with automated, software-controlled operation

Optimized Sensitivity with Pulsed Field Gradients

- **^{1}H ≥ 100:1** - 1% ethyl benzene in $CDCl_3$
- **^{19}F ≥ 90:1** - 0.5% trifluorotoluene (TFT) in $CDCl_3$
- **^{31}P ≥ 130:1** - 0.485 M triphenyl phosphate (TPP) in acetone-d_6
- **^{29}Si ≥ 25:1** - 100% hexamethyl disiloxane (HMDSO)

Curious to see it in action?

Schedule a personalized demo and discover how the Fourier 80 Multi-Talent can transform your academic lab.

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Customer Support
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Online information
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