



## **Bruker Introduces Innovative Fourier 80 Multinuclear Benchtop FT-NMR**

***Unique Fourier 80 'Multi-Talent' offers  $^1\text{H}$  NMR and choice of 15 X-nuclei with just one click***

ASILOMAR, California – April 7, 2025 – At the Joint ENC-ISMAR Conference 2025, [Bruker Corporation](#), the leading provider of Nuclear Magnetic Resonance (NMR) spectroscopy solutions, announced the launch of an innovative Fourier 80 multinuclear benchtop FT-NMR spectrometer, known as the 'Multi-Talent' configuration. This novel Fourier 80 'Multi-Talent' system represents a major advancement in permanent magnet-based FT-NMR technology, as its unique, next-generation capabilities meet the evolving needs of academic researchers and industry scientists with dramatically enhanced versatility in benchtop FT-NMR multinuclear analysis.

The Fourier 80 'Multi-Talent' system measures or decouples  $^1\text{H}$ , and in addition can select one of 15 different X-nuclei to be either observed in  $\text{X}\{^1\text{H}\}$  experiments, or selected X-nuclei can be decoupled for proton observation in  $^1\text{H}\{\text{X}\}$  experiments. This enables many types of X-nucleus observations, various 2D experiments, and importantly also the exquisitely sensitive inverse  $^1\text{H}$  observation methods for  $^{13}\text{C}$ ,  $^{19}\text{F}$  or  $^{15}\text{N}$  experiments.

Similarly, the Fourier 80 'Multi-Talent' can observe  $^{19}\text{F}\{^1\text{H}\}$  with proton decoupling for the simplification of  $^{19}\text{F}$  spectra, a capability of high interest to pharmaceutical customers studying fluorinated drug candidates. For battery research, the Fourier 80 'Multi-Talent' enables nuclei observations from Li-brine mining, like  $^7\text{Li}$ ,  $^{23}\text{Na}$ , and  $^{11}\text{B}$  for the formulation of battery electrolytes. Novel electrochemical systems can be explored to advance next generation battery technologies. These unprecedented benchtop capabilities are selectable via software, eliminating the need for NMR probe tuning and matching.

The 'Multi-Talent' uses standard 5 mm NMR samples, includes gradient spectroscopy, with options for adjustable sample temperature (AT), or sample changer automation. The user-friendly Fourier 80 interface ensures that novice and experienced users can navigate through measurements effortlessly, streamlining complex tasks and enhancing productivity.

Dr. Agnes Haber, the Fourier 80 Product Manager at Bruker BioSpin, stated: "The Fourier 80 'Multi-Talent' represents a game-changing advancement in benchtop FT-NMR, with next-generation multinuclear capabilities addressing the demand for a versatile system for  $^1\text{H}$ -NMR, plus an unprecedented choice of fifteen X-nuclei, with ease, and even under automation. We have already successfully installed a dozen Fourier 80 multinuclear systems in customer labs, and we anticipate that this novel system may become the new *de facto* standard in benchtop multinuclear NMR spectroscopy."



### **About Bruker Corporation – Leader of the Post-Genomic Era (Nasdaq: BRKR)**

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Novel multinuclear benchtop Fourier 80 'Multi-Talent' with optional sample changer automation