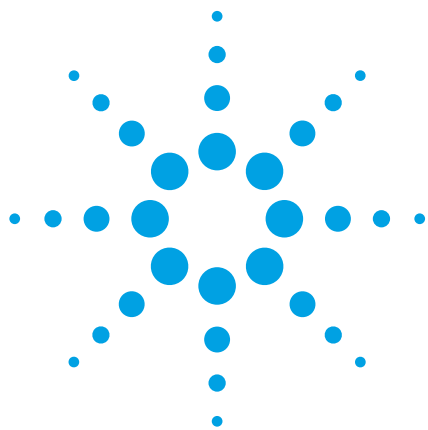
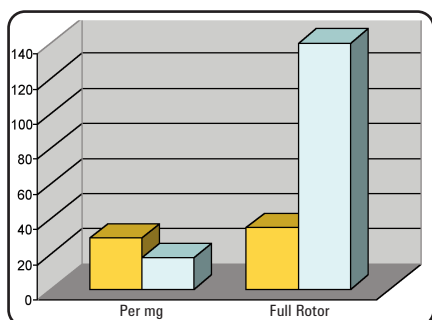




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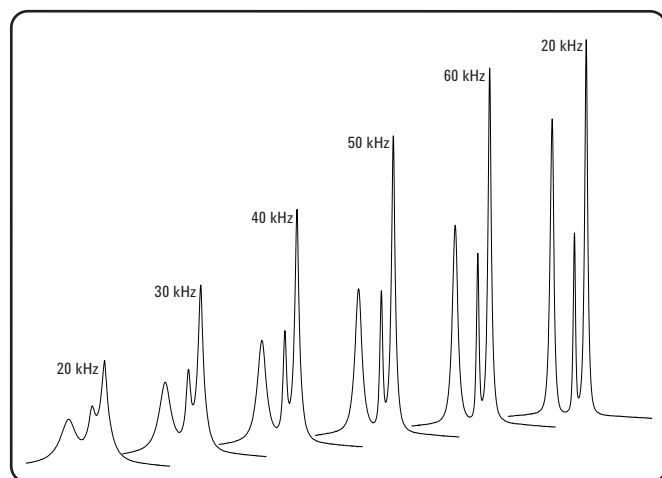
Data Sheet



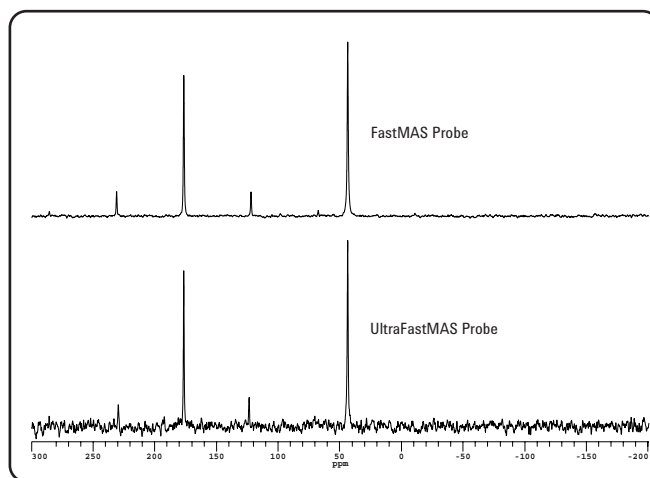
Carbon sensitivity comparison of the FastMAS (blue) and UltraFastMAS (gold) probes, measured with glycine using 32 transients at 600 MHz.

Key Benefits

- High-resolution ^1H spectra
- Increased sensitivity per milligram
- Excellent RF performance with low power



^1H linewidth and sensitivity enhancement for alanine with increasing MAS. Each spectrum is two scans taken with a 900 ns $\pi/2$ pulse using only 25 W power.

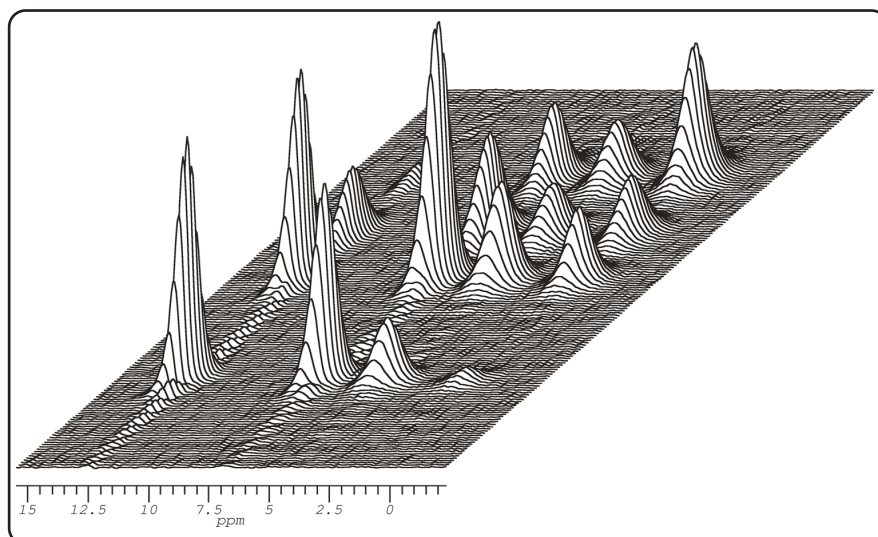


^{13}C CPMAS spectra of glycine obtained with 32 transients at 600 MHz

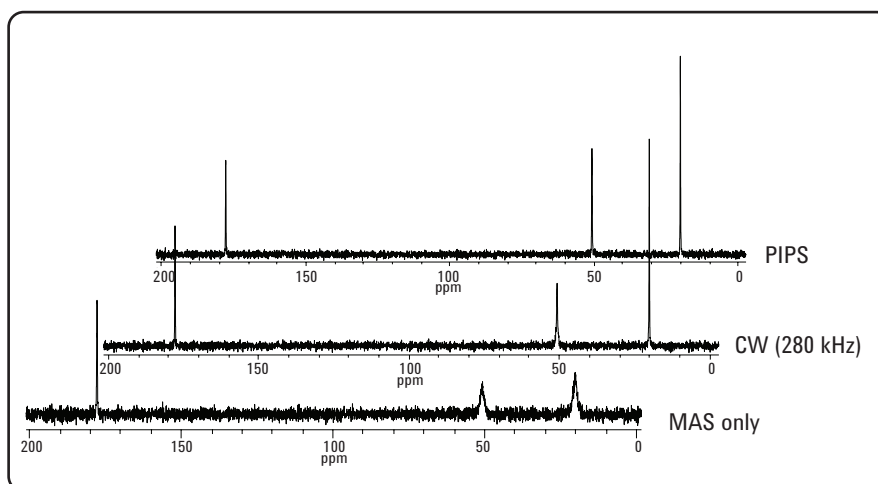


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The impressive ^1H sensitivity of FastMAS and UltraFastMAS probes easily support multidimensional NMR experiments. The exchange spectrum shown of ethylfumarate was collected with a 200 ms mixing time and demonstrates a simple 2D experiment, where the cross peaks represent spin exchange taking place during the mixing time.



Low power ^1H decoupling provides impressive results with FastMAS and UltraFastMAS probes. Spin exchange suppression at spinning speeds of 45 kHz or higher allow efficient decoupling using a simple 180 degrees pulse every few rotor cycles. We refer to this decoupling scheme as PIPS, an acronym for PI Pulses. This low average power sequence is easy to set up, requiring only knowledge of pulse width and spinning speed. Shown are 60 KHz ^{13}C CPMAS spectra of L-alanine, 1 mg natural abundance, 512 transients without linebroadening. Comparison: MAS-only decoupling, high power CW decoupling, and low power PIPS decoupling.



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