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Gradient, high resolution, magic angle sample spinning NMR

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Supplementary Material:

To implement the spectroscopic methods described in the above referenced paper we built a gradient coil which produced a magnetic field gradient whose z-component increased linearly along the spinner axis. There are two simple tests that demonstrate this. First a 1-D profile of the sample spin density (a rotor filled with D₂O) taken while the sample is spinning shows no sidebands which would be present if the z-component of this field was not uniform throughout each plane perpendicular to the spinner axis. This is shown in figure 1. Figure 2, shows the corresponding 1-D profile of the same sample under static conditions, and this has the same shape and width as the profile recorded under MAS, therefore the spinning does not average the magnetic field gradient.

Figure captions:

Figure 1. A 1-D profile of a D₂O filled rotor obtained in a single acquisition under MAS (spinning at 3 kHz).

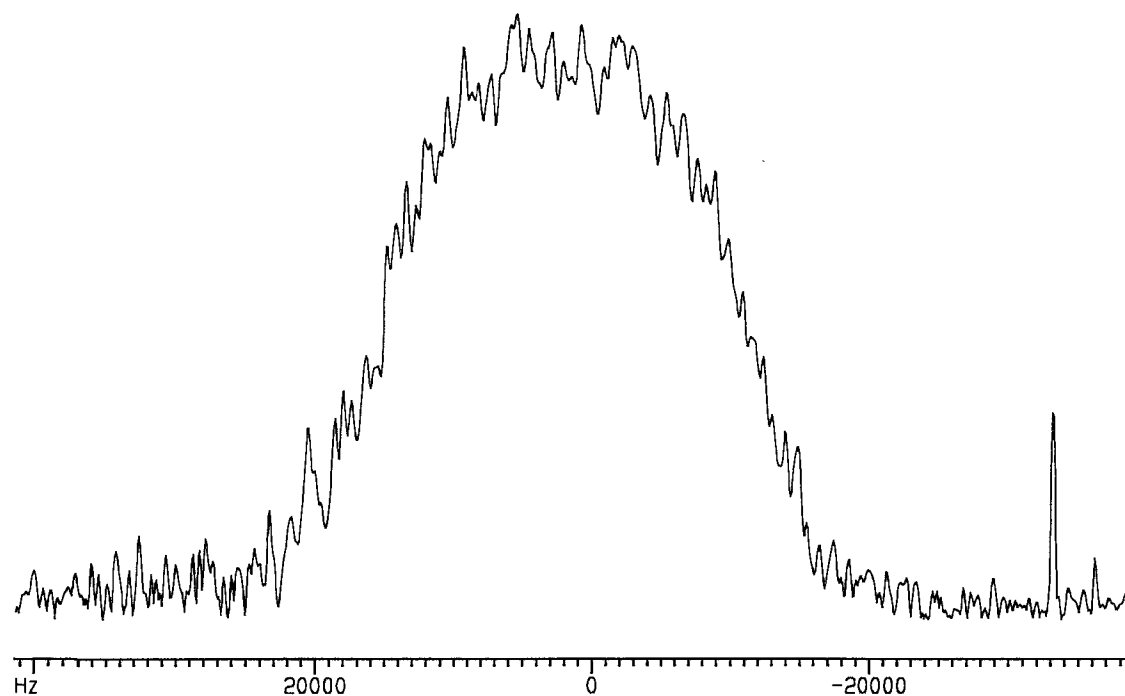
Figure 2. A 1-D profile of the same sample as in figure 1, obtained under identical conditions but from a stationary sample.

MAS

3 kHz

Figure 1, supplementary
material

Maas et al.



STATIC

Figure 2, supplementary
Material

Maas et al.

