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# Magic-angle turning with double acquisition

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## Abstract

The double-acquisition scheme for efficient data collection of hypercomplex data (the States method) of a two-dimensional experiment is adopted to magic-angle hopping (MAH) and magic-angle turning (MAT) experiments, which are powerful methods to measure the principal values of the chemical shift anisotropy (CSA) in a powder sample. It is shown that the double acquisition MAT (DAMAT) sequence realizes the S/N ratio comparable to or better than those of other variants of the MAH/MAT sequences. In addition, we show that DAMAT has preferable features that there are no spinning sidebands in the indirect dimension, and no spectral shearing is necessary.

*Key words:* Magic-Angle Turning (MAT), double acquisition, high resolution solid state NMR

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