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Version 2

Network for Advanced NMR Materials SSNMR Data Acquisition Protocols V.2

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External link: <http://usnan.nmrhub.org>

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Protocol status: Working

We use this collection and it's working

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Keywords: advanced nmr materials ssnmr data acquisition protocol, nan materials ssnmr data acquisition protocols collection, part of the nan materials ssnmr knowledgebase, nan materials ssnmr knowledgebase, nmr, limited nmr expertise, state nmr, users with limited nmr expertise, links to the nan data browser, nan data browser, such as the quantitative bloch decay, common research questions in materials science, protocol, materials science, quantitative bloch decay, first batch of protocol, pulse program

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Abstract

The NAN Materials SSNMR Data Acquisition Protocols collection is part of the NAN Materials SSNMR Knowledgebase; a collection of resources, training and educational material, pulse programs and parameter sets, calibration procedures, sample data sets, and protocols designed to enable users with limited NMR expertise to design experiments, collect, and analyze NMR to address common research questions in materials science or chemistry using solid-state NMR. This collection includes the first batch of protocols, including both fundamental experiments (such as the quantitative Bloch decay or CPMAS) and advanced experiments (including D-HMQC and RESPDOR).

Each protocol contains links to the NAN Data Browser, where the relevant pulse program, pulse program files, and example data can be found.

Guidelines

These protocols have been successfully tested at NMRFAM, but are still under beta testing conditions. Use care when implementing them at a local facility, and consult with a local NMR expert when in doubt. Feedback is appreciated.

Safety warnings

- ⚠ While the protocols warn when there is a risk of damage to the NMR probe by using high power, the associated pulse programs do not have safety interlocks; always be cautious of the power level being applied to the probe.

Before start

To access the pulse programs associated with these protocols, visit the NAN data browser at usnan.nmrhub.org and navigate to the appropriate Knowledgebase entry.

Files

 SEARCH

Protocol

NAME
Direct Detect D-HMQC

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Protocol

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Protocol

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Direct Polarization Spin Diffusion

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Protocol

NAME
Direct-Detect HETCOR

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Protocol

NAME

Spin-1/2 J-Based DQ-SQ Correlation with Cross Polarization

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Protocol

NAME

CP-Based Saturation Recovery

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Protocol

NAME

Quantitative Bloch Decay for Spin-1/2 Nuclei

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Protocol

NAME

DEPTH

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Protocol

NAME

CRAMPS

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RESPDOR

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Hahn Echo for High-Gamma Nuclei

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Protocol

NAME

Quadrupolar Non-Quantitative Bloch Decay

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Protocol

NAME

Spin Echo with Half-Echo Acquisition



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Protocol

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MQMAS Using Split-t1 Acquisition

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CPMAS

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Protocol

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Spin Echo with Whole-Echo Acquisition

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Quadrupolar Quantitative Bloch Decay

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Saturation Recovery for Quadrupolar Nuclei

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Quadrupole CT-Selective Pulse Width Optimization

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Protocol

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Saturation Recovery with Half-Echo Acquisition

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