

ПН
580/мг

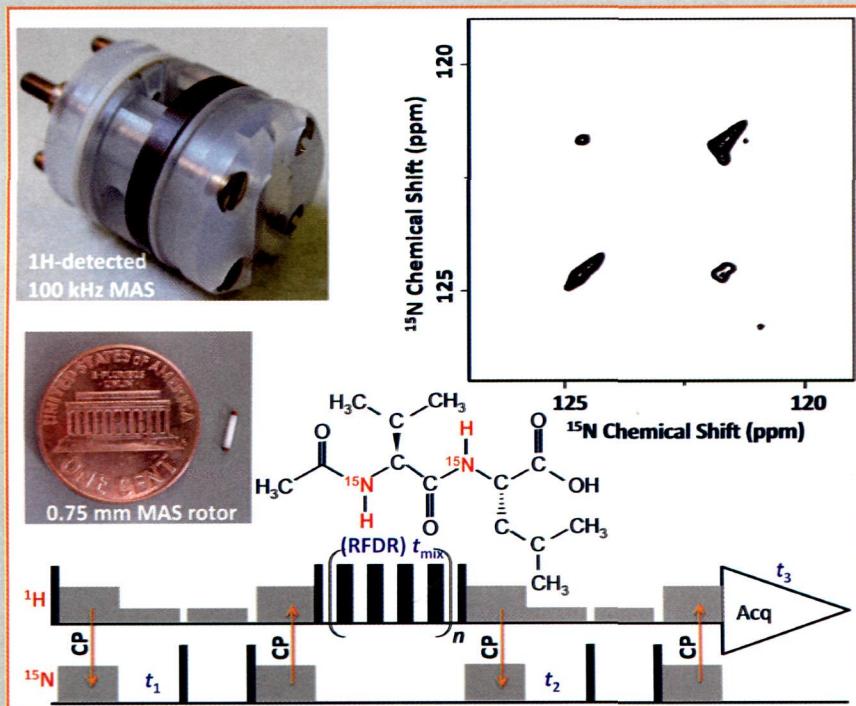


ELSEVIER

ISSN 1090-7807
Volume 244, July 2014

JMR

Journal of Magnetic Resonance



1H-detected 3D $^{15}\text{N}/^{15}\text{N}/^{1}\text{H}$ with ^{1}H -dipolar-mixing renders chemical shift correlation of amide- ^{15}N nuclei at 100 kHz MAS.

Editor: Lucio Frydman

Available online at www.sciencedirect.com

ScienceDirect



Contents lists available at ScienceDirect

Journal of Magnetic Resonance

journal homepage: www.elsevier.com/locate/jmr



Volume 244, July 2014

CONTENTS

REGULAR ARTICLES

- 1 3D $^{15}\text{N}/^{15}\text{N}/^1\text{H}$ chemical shift correlation experiment utilizing an RFDR-based $^1\text{H}/^1\text{H}$ mixing period at 100 kHz MAS**
Yusuke Nishiyama, Michal Malon, Yuji Ishii, Ayyalusamy Ramamoorthy
- 6 Two-dimensional diffusion time correlation experiment using a single direction gradient**
Jeffrey L. Paulsen, Yi-Qiao Song
- 12 Superstatistics model for T_2 distribution in NMR experiments on porous media**
M.D. Correia, A.M. Souza, J.P. Sinnecker, R.S. Sarthour, B.C.C. Santos, W. Trevizan, I.S. Oliveira
- 18 Evaluating the uncertainty in exchange parameters determined from off-resonance $R_{1,\rho}$ relaxation dispersion for systems in fast exchange**
Jameson R. Bothe, Zachary W. Stein, Hashim M. Al-Hashimi
- 30 Measurement of T_1/T_2 relaxation times in overlapped regions from homodecoupled ^1H singlet signals**
Laura Castañar, Pau Nolis, Albert Virgili, Teodor Parella
- 36 Convex optimisation of gradient and shim coil winding patterns**
Michael S. Poole, N. Jon Shah
- 46 Parallel acquisition of q -space using second order magnetic fields for single-shot diffusion measurements**
W.C. Kittler, P. Galvosas, M.W. Hunter
- 53 A framework for accurate determination of the T_2 distribution from multiple echo magnitude MRI images**
Ruiliang Bai, Cheng Guan Koay, Elizabeth Hutchinson, Peter J. Basser
- 68 r TPPM: Towards improving solid-state NMR two-pulse phase-modulation heteronuclear dipolar decoupling sequence by refocusing**
Asif Equbal, Subhradip Paul, Venus Singh Mithu, Joachim M. Vinther, Niels Chr. Nielsen, P.K. Madhu
- 74 Characterization and correction of eddy-current artifacts in unipolar and bipolar diffusion sequences using magnetic field monitoring**
Rachel W. Chan, Constantin von Deuster, Daniel Giese, Christian T. Stoeck, Jack Harmer, Andrew P. Aitken, David Atkinson, Sebastian Kozerke
- 90 Acceleration of natural-abundance solid-state MAS NMR measurements on bone by paramagnetic relaxation from gadolinium-DTPA**
Kamal H. Mroue, Rongchun Zhang, Peizhi Zhu, Erin McNerny, David H. Kohn, Michael D. Morris, Ayyalusamy Ramamoorthy
- 98 Synthesis and evaluation of nitroxide-based oligoradicals for low-temperature dynamic nuclear polarization in solid state NMR**
Wai-Ming Yau, Kent R. Thurber, Robert Tycko

COMMUNICATIONS

- 64 **Remote sensing of sample temperatures in nuclear magnetic resonance using photoluminescence of semiconductor quantum dots**
Robert Tycko
- 85 **Efficient polarization transfer between spin-1/2 and ^{14}N nuclei in solid-state MAS NMR spectroscopy**
Kristoffer Basse, Sheetal Kumar Jain, Oleg Bakharev, Niels Chr. Nielsen
- 107 **Phase-modulated LA-REDOR: A robust, accurate and efficient solid-state NMR technique for distance measurements between a spin-1/2 and a quadrupole spin**
Evgeny Nimerovsky, Rupal Gupta, Jenna Yehl, Mingyue Li, Tatyana Polenova, Amir Goldbourt
- 114 **An exact solution for $R_{2,\text{eff}}$ in CPMG experiments in the case of two site chemical exchange**
Andrew J. Baldwin
- 125 **Gordon F. Kirkbright Bursary Award, 2015**