

Contents of Volume 162

Number 1, May 2003

ADVANCES IN MAGNETIC RESONANCE

- 1 Heteronuclear spin decoupling in solid-state NMR under magic-angle sample spinning**
Matthias Ernst

REGULAR ARTICLES

- 35 Stochastic excitation and Hadamard correlation spectroscopy with bandwidth extension in RF FT-EPR**
Randall H. Pursley, John Kakareka, Ghadi Salem, Nallathamby Devasahayam,
Sankaran Subramanian, Rolf G. Tschudin, Murali C. Krishna, and Thomas J. Pohida
- 46 Phase-modulated heteronuclear decoupling in NMR of solids**
A.K. Khitrin, Toshimichi Fujiwara, and Hideo Akutsu
- 54 Band-selective recoupling of homonuclear double-quantum dipolar interaction with a generalized composite 0° pulse: application to ^{13}C aliphatic region-selective magnetization transfer in solids**
Yoh Matsuki, Hideo Akutsu, and Toshimichi Fujiwara
- 67 Difference-NMR techniques for selection of components on the basis of relaxation times**
Douglas J. Harris, Eduardo R. de Azevedo, and Tito J. Bonagamba
- 74 Progress on the two-dimensional filter diagonalization method. An efficient doubling scheme for two-dimensional constant-time NMR**
Jianhan Chen, Anna A. De Angelis, Vladimir A. Mandelshtam, and A.J. Shaka
- 90 Carbon-13 lineshapes in solid-state NMR of labeled compounds. Effects of coherent CSA-dipolar cross-correlation**
Luminita Duma, Sabine Hediger, Anne Lesage, Dimitris Sakellariou, and Lyndon Emsley
- 102 Complexation-induced chemical shifts—ab initio parameterization of transferable bond anisotropies**
Martin J. Packer, Cristiano Zonta, and Christopher A. Hunter
- 113 Artifacts in $T_{1\rho}$ -weighted imaging: correction with a self-compensating spin-locking pulse**
Sridhar R. Charagundla, Arijitt Borthakur, John S. Leigh, and Ravinder Reddy
- 122 In vivo NMR of hyperpolarized ^3He in the human lung at very low magnetic fields**
Christopher P. Bidinosti, Jamal Choukeife, Pierre-Jean Nacher, and Geneviève Tastevin
- 133 Spectral restoration from low signal-to-noise, distorted NMR signals: application to hyphenated capillary electrophoresis-NMR**
Yu Li, Michael E. Lacey, Jonathan V. Sweedler, and Andrew G. Webb
- 141 Inverse methods in two-dimensional NMR spectral analysis**
Jacco D. van Beek, Beat H. Meier, and Hartmut Schäfer
- 158 Frequency-domain Hadamard spectroscopy**
Āriks Kupče and Ray Freeman
- 166 Anisotropy of collagen fiber orientation in sheep tendon by ^1H double-quantum-filtered NMR signals**
R. Fechete, D.E. Demco, B. Blümich, U. Eliav, and G. Navon
- 176 A statistical analysis of NMR spectrometer noise**
Halfdan Grage and Mikael Akke
- 189 An NMR technique for measurement of magnetic field gradient waveforms**
Vladimír Jellůš, Jonathan C. Sharp, Boguslaw Tomanek, and Peter Latta
- 198 Self- and mutual-diffusion coefficients measurements by ^{31}P NMR 1D profiling and PFG-SE in dextran gels**
Sungjong Kwak, Minh Tan Phan Viet, and Michel Lafleur

- 206 **The DIVAM sequence: selective excitation of signals from both rigid and mobile domains in a fluoropolymer**
Paul Hazendonk, Robin K. Harris, Shinji Ando, and Paolo Avalle
- 217 **Recoupled long-range C–H dipolar dephasing in solid-state NMR, and its use for spectral selection of fused aromatic rings**
J.-D. Mao and K. Schmidt-Rohr

Number 2, June 2003

REGULAR ARTICLES

- 229 **Nuclear spin relaxation in paramagnetic systems ($S \geq 1$) under fast rotation conditions**
Danuta Kruk and Jozef Kowalewski
- 241 **Laser-polarized ^{129}Xe NMR at 1.88 T and 8.5 mT: a signal-to-noise ratio comparison**
Albert R. Cross, Mark McDonald, Juan Parra Robles, and Giles E. Santyr
- 250 **An improved gridding method for spiral MRI using nonuniform fast Fourier transform**
Liewei Sha, Hua Guo, and Allen W. Song
- 259 **Automated data processing of $\{^1\text{H-decoupled}\}^{13}\text{C}$ MR spectra acquired from human brain in vivo**
Frederick Shic and Brian Ross
- 269 ***BlochLib*: a fast NMR C++ tool kit**
Wyndham B. Blanton
- 284 **Ultra-broadband NMR probe: numerical and experimental study of transmission line NMR probe**
Atsushi Kubo and Shinji Ichikawa
- 300 **Two-dimensional Hadamard spectroscopy**
Ēriks Kupĉe and Ray Freeman
- 311 **Optimal control of spin dynamics in the presence of relaxation**
Navin Khaneja, Timo Reiss, Burkhard Luy, and Steffen J. Glaser
- 320 **Diffusion–relaxation correlation in simple pore structures**
P.T. Callaghan, S. Godefroy, and B.N. Ryland
- 328 **The equivalence between off-resonance and on-resonance pulse sequences and its application to steady-state free precession with diffusion in inhomogeneous fields**
D.E. Freed, M.D. Hürlimann, and U.M. Scheven
- 336 **170 nm nuclear magnetic resonance imaging using magnetic resonance force microscopy**
Kent R. Thurber, Lee E. Harrell, and Doran D. Smith
- 341 **Measurement of small spin–spin splittings in the presence of chemical exchange: case of deuteriated water**
L. Mahi and J.C. Duplan
- 348 **Self-diffusion coefficient by single-sided NMR**
C. Casieri, S. Bubici, and F. De Luca
- 356 **Flow effects in long-range dipolar field MRI**
Paulo Loureiro de Sousa, Daniel Gounot, and Daniel Grucker
- 364 **Separation of velocity distribution and diffusion using PFG NMR**
A. Gottwald, P. Kuran, and U. Scheler
- 371 **Chain dynamics in the low-temperature phases of lipid membranes by electron spin-echo spectroscopy**
Rosa Bartucci, Rita Guzzi, Derek Marsh, and Luigi Sportelli
- 380 **Measurement of spin–lattice relaxation times in EPR with enhanced orientation selectivity**
Rüdiger-A. Eichel, Josef Granwehr, and Arthur Schweiger

- 385 **Internal consistency of NMR data obtained in partially aligned biomacromolecules**
Lukáš Žídek, Petr Padrta, Josef Chmelík Jr., and Vladimír Sklenář
- 396 **Echo-planar rotating-frame imaging**
F. Casanova, H. Robert, J. Perlo, and D. Pusiol
- 402 **SCAM-STMAS: satellite-transition MAS NMR of quadrupolar nuclei with self-compensation for magic-angle misset**
Sharon E. Ashbrook and Stephen Wimperis
- 417 **Impurity proton NMR signals from common “proton-free” laboratory materials**
H. Nathaniel Bachman and Isaac F. Silvera
- 423 **Selective excitation in pulsed EPR of a spin-correlated triplet-radical pair**
L.V. Kulik, I.V. Borovykh, P. Gast, and S.A. Dzuba
- 429 **Anisotropic motion effects in CW non-linear EPR spectra: relaxation enhancement of lipid spin labels**
V.A. Livshits, B.G. Dzikovski, and D. Marsh
- 443 **Enhanced triple-quantum excitation in ^{13}C magic-angle spinning NMR**
Marina Carravetta, Jörn Schmedt auf der Günne, and Malcolm H. Levitt
- 454 **High frequency and field EPR spectroscopy of Mn(III) complexes in frozen solutions**
J. Krzystek and Joshua Telser
- 466 **Analysis of the tuning and operation of reflection resonator EPR spectrometers**
Vladimir Krymov and Gary J. Gerfen
- 479 **Chemical shift referencing in MAS solid state NMR**
Corey R. Morcombe and Kurt W. Zilm
- 487 ***AUTHOR INDEX FOR VOLUME 162***