JOURNAL OF MAGNETIC RESONANCE

CONTENTS

Volume 173, Number 1, March 2005

REGULAR ARTICLES

1 **Translational free random walk of spins in the presence of a parabolic magnetic field**
Oleg Posnansky, Ruiwang Huang, N. Jon Shah

10 **Computer simulation studies of the effects of dynamic shimming on susceptibility artifacts in EPI at high field**
Yansong Zhao, Adam W. Anderson, John C. Gore

23 **NMR detection and one-dimensional imaging using the inhomogeneous magnetic field of a portable single-sided magnet**
S. Rahmatallah, Y. Li, H.C. Seton, I.S. Mackenzie, J.S. Gregory, R.M. Aspden

49 **ENDOR spectroscopy at 275 GHz**
H. Blok, J.A.J.M. Disselhorst, H. van der Meer, S.B. Orlinskii, J. Schmidt

54 **Numerical simulation of PRESS localized MR spectroscopy**
Andrew A. Maudsley, Varanavasi Govindaraju, Karl Young, Zakaria K. Aygula, Pradip M. Pattany, Brian J. Soher, Gerald B. Matson

64 **3D NMR spectroscopy for resonance assignment and structure elucidation of proteins under MAS: novel pulse schemes and sensitivity considerations**
Henrike Heise, Karsten Seidel, Manuel Etzkorn, Stefan Becker, Marc Baldus

75 **^{1}H NMRD profiles and ESR lineshapes of Gd(III) complexes: a comparison between the generalized SBM and the stochastic Liouville approach**
Xiangzhi Zhou, Per-Olof Westlund

84 **Practical aspects of shimming a high resolution magic angle spinning probe**
Martial Piotto, Karim Elbayed, Jean-Michel Wieruszeski, Guy Lippens

97 **The SIMRI project: a versatile and interactive MRI simulator**
H. Benoit-Cattin, G. Collewet, B. Belaroussi, H. Saint-Jalmes, C. Odet

116 **Optimal experiments for maximizing coherence transfer between coupled spins**
Navin Khaneja, Frank Kramer, Steffen J. Glaser

125 **Relaxation of pseudo pure states: the role of cross-correlations**
Arindam Ghosh, Anil Kumar

140 **Missing first points and phase artifact mutually entangled in FT NMR data—noniterative solution**
Grzegorz Stoch, Zbigniew Olejniczak

153 **A new approach for simultaneous measurement of ADC and T_2 from echoes generated via multiple coherence transfer pathways**
Henry Ong, Chih-Liang Chin, Suzanne L. Wehrli, Xiaoping Tang, Felix W. Wehrli

160 **Rapid high-resolution four-dimensional NMR spectroscopy using the filter diagonalization method and its advantages for detailed structural elucidation of oligosaccharides**
Geoffrey S. Armstrong, Vladimir A. Mandelshtam, A.J. Shaka, Brad Bendiak

Continued

Abstracting and indexing coverage for the *Journal of Magnetic Resonance* includes Adonis UK, Chemical Abstracts, INSPEC UK, ISI's Science Citation Index, and Index Medicus (MEDLINE)

169 **Increasing the speed of relaxometry-based compartmental analysis experiments in STEAM spectroscopy**
Jack Knight-Scott, S. Andrea Dunham, Dattesh D. Shanbhag

175 **Entropy minimization and spectral dissimilarity curve resolution technique applied to nuclear magnetic resonance data sets**
Effendi Widjaja, Marc Garland

COMMUNICATIONS

29 **HMBC-like experiment based on longitudinal csa/dipolar cross-correlation**
Sabine Bouguet-Bonnet, Sébastien Leclerc, Pierre Mutzenhardt, Daniel Canet

34 **Fast and simultaneous measurement of longitudinal and transverse NMR relaxation times in a single continuous wave free precession experiment**
Tiago Venâncio, Mario Engelsberg, Rodrigo B.V. Azeredo, Neif E.R. Alem, Luiz A. Colnago

40 **Reduction of RF-induced sample heating with a scroll coil resonator structure for solid-state NMR probes**
John A. Stringer, Charles E. Bronnimann, Charles G. Mullen, Donghua H. Zhou, Sara A. Stellfox, Ying Li, Evan H. Williams, Chad M. Rienstra

90 **T_2-shortening of ^{3}He gas by magnetic microspheres**
Kevin R. Minard, Charles Timchalk, Richard A. Corley

134 **Reduced data acquisition time in multi-dimensional NMR spectroscopy using multiple-coil probes**
Han Wang, Luisa Ciobanu, Andrew Webb

183 ***ANNOUNCEMENT***