

# JOURNAL OF MAGNETIC RESONANCE

## CONTENTS

Volume 165, Number 1, November 2003

### REGULAR ARTICLES

- 1 Hydrogen bonds lengths in nucleic acids estimated from longitudinal nitrogen-15 relaxation  
Dimitri Bytchenkoff and Geoffrey Bodenhausen
- 9 Parameter maps of  $^1\text{H}$  residual dipolar couplings in tendon under mechanical load  
R. Fechete, D.E. Demco, and B. Blümich
- 18 Distance measurements in spin-1/2 systems by  $^{13}\text{C}$  and  $^{31}\text{P}$  solid-state NMR in dense dipolar networks  
Jörn Schmedt auf der Günne
- 33 Quantitative analysis of dinuclear manganese(II) EPR spectra  
Adina P. Golombek and Michael P. Hendrich
- 49 Application of the NMR-MOUSE to food emulsions  
H.T. Pedersen, S. Ablett, D.R. Martin, M.J.D. Mallett, and S.B. Engelsen
- 59 Broadband  $^{13}\text{C}$ - $^{13}\text{C}$  adiabatic mixing in solution optimized for high fields  
Andrew E. Bennett, John D. Gross, and Gerhard Wagner
- 80 Frequency-domain method based on the singular value decomposition for frequency-selective NMR spectroscopy  
Petre Stoica, Niclas Sandgren, Yngve Selén, Leentje Vanhamme, and Sabine Van Huffel
- 89 Dissection of heteronuclear NMR experiments for studies of magnetization transfer efficiencies  
D. Braun, K. Wüthrich, and G. Wider
- 95 Broadband geodesic pulses for three spin systems: time-optimal realization of effective trilinear coupling terms and indirect SWAP gates  
Timo O. Reiss, Navin Khaneja, and Steffen J. Glaser
- 102 PFG-assisted selection and suppression of  $^1\text{H}$  NMR signals in the solid state under fast MAS  
Ingrid Fischbach, Karena Thieme, Anke Hoffmann, Manfred Hehn, and Ingo Schnell
- 116 High resolution electron spin resonance microscopy  
Aharon Blank, Curt R. Dunnam, Peter P. Borbat, and Jack H. Freed
- 128 Electronic g-factor measurement from ENDOR-induced EPR patterns: malonic acid and guanine hydrochloride dihydrate  
Junseog Kang, Sibel Tokdemir, Jun Shao, and William H. Nelson
- 137 Aqueous flat cells perpendicular to the electric field for use in electron paramagnetic resonance spectroscopy  
Richard R. Mett and James S. Hyde
- 153 Effects of finite-width pulses in the pulsed-field gradient measurement of the diffusion coefficient in connected porous media  
Lukasz J. Zielinski and Pabitra N. Sen

*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)

**162 Preparation of protein nanocrystals and their characterization by solid state NMR**

Rachel W. Martin and Kurt W. Zilm

**COMMUNICATIONS**

**175 Low field intermolecular double-quantum coherence imaging via the Overhauser effect**

Wilson Barros Jr., Paulo Loureiro de Sousa, and M. Engelsberg

**180 An application of the XiX decoupling for solid state  $^{13}\text{C}$  NMR with mobile samples**

Jun Ashida and Tetsuo Asakura