

**REGULAR ARTICLES**

- 1 Accurate CSA measurements from uniformly isotopically labeled biomolecules at high magnetic field  
Suzanne R. Kiihne, Alain F.L. Creemers, Johan Lugtenburg, Huub J.M. de Groot
- 9 In vivo single-shot three-dimensionally localized multiple quantum spectroscopy of GABA in the human brain with improved spectral selectivity  
In-Young Choi, Sang-Pil Lee, Jun Shen
- 17 Tailoring the optimal control cost function to a desired output: application to minimizing phase errors in short broadband excitation pulses  
Thomas E. Skinner, Timo O. Reiss, Burkhard Luy, Navin Khaneja, Steffen J. Glaser
- 36 Measuring  $^1\text{H}$ - $^1\text{H}$  and  $^1\text{H}$ - $^{13}\text{C}$  RDCs in methyl groups: example of pulse sequences with numerically optimized coherence transfer schemes  
Konstantin Pervushin, Beat Vögeli, Tim N. Heinz, Philippe H. Hünenberger
- 48 Spin-lattice NMR relaxation by anomalous translational diffusion  
A.E. Sitnitsky, G.G. Pimenov, A.V. Anisimov
- 56 Resolution enhancement in MAS solid-state NMR by application of  $^{13}\text{C}$  homonuclear scalar decoupling during acquisition  
Veniamin Chevelkov, Zhongjing Chen, Wolfgang Bermel, Bernd Reif
- 63 Practical pulse synthesis via the discrete inverse scattering transform  
Jeremy Magland, Charles L. Epstein
- 79 Multi-dimensional magnetic resonance imaging in a stray magnetic field  
Jay H. Baltisberger, Sabine Hediger, Lyndon Emsley
- 85 Assessment of protein alignment using  $^1\text{H}$ - $^1\text{H}$  residual dipolar coupling measurements  
Junfeng Wang, Homayoun Valafar, James H. Prestegard
- 91 Time-dependence of nuclear magnetic resonance quadrupole interactions for polymers under shear  
J.M. Atkin, R.J. Cormier, P.T. Callaghan
- 98 Multispin moments edited by multiple-quantum NMR: application to elastomers  
M.A. Voda, D.E. Demco, J. Perlo, R.A. Orza, B. Blümich
- 110 Simplifying DOSY spectra with selective TOCSY edited preparation  
Scott A. Bradley, Krish Krishnamurthy, Haitao Hu
- 118 Residual dipolar couplings and some specific models for motional averaging  
Michaël Deschamps, Iain D. Campbell, Jonathan Boyd
- 133 Temperature dependence of nuclear magnetization and relaxation  
David H. Gultekin, John C. Gore
- 142 SIMQUADNMR: a program for simulation and interpretation of multiple quantum-filtered NMR spectra of quadrupolar nuclei  
Nicola D'Amelio, Elena Gaggelli, Elena Molteni, Gianni Valensin

*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)

- 152 A global inversion method for multi-dimensional NMR logging**  
Boqin Sun, Keh-Jim Dunn
- 161 Probing short length scales with restricted diffusion in a static gradient using the CPMG sequence**  
Lukasz J. Zielinski, Martin D. Hürlimann
- 168 Frequency (250 MHz to 9.2 GHz) and viscosity dependence of electron spin relaxation of triarylmethyl radicals at room temperature**  
Rikard Owenius, Gareth R. Eaton, Sandra S. Eaton

***COMMUNICATIONS***

- 24 The equilibrium unfolding of MerP characterized by multivariate analysis of 2D NMR data**  
Anders Berglund, Ann-Christin Brorsson, Bengt-Harald Jonsson, Ingmar Sethson
- 31 An NMR technique for rapid measurement of flow**  
Yi-Qiao Song, Ulrich M. Scheven

***ANNOUNCEMENTS***