REGULAR ARTICLES

- 179 Spatially encoded NMR and the acquisition of 2D magnetic resonance images within a single scan Yoav Shrot, Lucio Frydman
- Backbone-only restraints for fast determination of the protein fold: The role of paramagnetism-based restraints. Cytochrome b_{562} as an example

Lucia Banci, Ivano Bertini, Isabella C. Felli, Josephine Sarrou

- 201 EMR and optical study of Mn²⁺ doped potassium trihydrogen selenite Ram Kripal, Vishal Mishra
- 209 Separated quadrupolar field experiment

Rajeev Kumar, Wen Ling, Wolfgang Schoefberger, Alexej Jerschow

- ²H $T_{2\rho}$ relaxation dynamics and double-quantum filtered NMR studies Dennis W. Hwang, Wei-Jie Jhao, Lian-Pin Hwang
- An object-oriented designed finite-difference time-domain simulator for electromagnetic analysis and design in MRI—applications to high field analyses

Q. Wei, F. Liu, L. Xia, S. Crozier

- Rapid determination of the RF pulse flip angle and spin-lattice relaxation time for materials imaging Igor V. Mastikhin
- A simulation algorithm based on Bloch equations and product operator matrix: application to dipolar and scalar couplings

Congbo Cai, Zhong Chen, Shuhui Cai, Jianhui Zhong

254 The solution conformation of triarylmethyl radicals

M.K. Bowman, C. Mailer, H.J. Halpern

- Increasing the sensitivity of 2D high-resolution NMR methods applied to quadrupolar nuclei J.P. Amoureux, L. Delevoye, S. Steuernagel, Z. Gan, S. Ganapathy, L. Montagne
- 279 The determination of pair distance distributions by pulsed ESR using Tikhonov regularization Yun-Wei Chiang, Peter P. Borbat, Jack H. Freed
- Optimal control of coupled spin dynamics: design of NMR pulse sequences by gradient ascent algorithms

Navin Khaneja, Timo Reiss, Cindie Kehlet, Thomas Schulte-Herbrüggen, Steffen J. Glaser

306 Relaxation-selective magnetization preparation based on T_1 and T_2

Mark D. Does

- An advanced EPR stopped-flow apparatus based on a dielectric ring resonator Günter Lassmann, Peter Paul Schmidt, Wolfgang Lubitz
- **A selective experiment for the sequential protein backbone assignment from 3D heteronuclear spectra**Wolfgang Bermel, Ivano Bertini, Isabella C. Felli, Roberta Pierattelli, Paul R. Vasos

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)

333 Aqueous flat-cells perpendicular to the electric field for use in electron paramagnetic resonance spectroscopy, II: design Jason W. Sidabras, Richard R. Mett, James S. Hyde 342 NMR detection of thermal damage in carbon fiber reinforced epoxy resins Steven K. Brady, Mark S. Conradi, Christopher M. Vaccaro 346 Diagnostic analysis of experimental artefacts in DOSY NMR data by covariance matrix of the residuals R. Huo, R.A. van de Molengraaf, J.A. Pikkemaat, R. Wehrens, L.M.C. Buydens **COMMUNICATIONS** 238 (Mathematical) Necessary conditions for the selection of gradient vectors in DTI Alpay Özcan

329 Resolving ambiguities in two-dimensional NMR spectra: the TILT' experiment Eriks Kupče, Ray Freeman

359 **AUTHOR INDEX FOR VOLUME 172**

360 **ANNOUNCEMENT**