

CONTENTS

■ SPECTROSCOPIC METHODOLOGY

Full Papers

Localization Errors in MR Spectroscopic Imaging Due to the Drift of the Main Magnetic Field and Their Correction, Assaf Tal and Oded Gonen 895
Published online 19 November 2012

Procedure for Quantitative ¹H Magnetic Resonance Spectroscopy and Tissue Characterization of Human Brain Tissue Based on the Use of Quantitative Magnetic Resonance Imaging, A. Tisell, O. Dahlqvist Leinhard, J. B. M. Warntjes, and P. Lundberg 905
Published online 20 November 2012

■ PRECLINICAL AND CLINICAL SPECTROSCOPY

Full Papers

Magnetization Exchange Observed in Human Skeletal Muscle by Non-Water-Suppressed Proton Magnetic Resonance Spectroscopy, Erin L. MacMillan, Chris Boesch, and Roland Kreis 916
Published online 21 November 2012

The Pore Size of PLGA Bone Implants Determines the De Novo Formation of Bone Tissue in Tibial Head Defects in Rats, Anja Penk, Yvonne Förster, Holger A. Scheidt, Ariane Nimptsch, Michael C. Hacker, Michaela Schulz-Siegmund, Peter Ahnert, Jürgen Schiller, Stefan Rammelt, and Daniel Huster 925
Published online 19 November 2012

Exchange-Linked Dissolution Agents in Dissolution-DNP ¹³C Metabolic Imaging, Ralph E. Hurd, Daniel Spielman, Sonal Josan, Yi-Fen Yen, Adolf Pfefferbaum, and Dirk Mayer 936
Published online 19 November 2012

Kinetic Modeling of Hyperpolarized ¹³C Pyruvate Metabolism in Tumors Using a Measured Arterial Input Function, S. M. Kazan, S. Reynolds, A. Kennerley, E. Wholey, J. E. Bluff, J. Berwick, V. J. Cunningham, M. N. Paley, and G. M. Tozer 943
Published online 20 November 2012

■ IMAGING METHODOLOGY

Rapid Communication

Simultaneous T₁ and B₁⁺ Mapping Using Reference Region Variable Flip Angle Imaging, Kyunghyun Sung, Manojkumar Saranathan, Bruce L. Daniel, and Brian A. Hargreaves 954
Published online 13 August 2012

Full Papers

Generalized INverse Imaging (GIN): Ultrafast fMRI With Physiological Noise Correction, Rasim Boyacıoğlu and Markus Barth 962
Published online 24 October 2012

Comprehensive Framework for Accurate Diffusion MRI Parameter Estimation, Jelle Veraart, Jeny Rajan, Ronald R. Peeters, Alexander Leemans, Stefan Sunaert, and Jan Sijbers 972
Published online 6 November 2012

In Vivo Measurement of Transverse Relaxation Time in the Mouse Brain at 17.6 T, Firat Kara, Fu Chen, Itamar Ronen, Huub J. M. de Groot, Jörg Matysik, and A Alia 985
Published online 14 November 2012

Initial Feasibility Testing of Limited Field of View Magnetic Resonance Thermometry Using a Local Cardiac Radiofrequency Coil, Nelly A. Volland, Eugene G. Kholmovski, Dennis L. Parker, and J. Rock Hadley 994
Published online 19 November 2012

Free-Breathing 3D Cardiac MRI Using Iterative Image-Based Respiratory Motion Correction, Mehdi H. Moghari, Sébastien Roujol, Raymond H. Chan, Susie N. Hong, Natalie Bello, Markus Henningsson, Long H. Ngo, Beth Goddu, Lois Goepfert, Kraig V. Kissinger, Warren J. Manning, and Reza Nezafat 1005
Published online 6 November 2012

Simultaneous In Vivo pH and Temperature Mapping Using a PARACEST-MRI Contrast Agent, Nevin McVicar, Alex X. Li, Mojmir Suchý, Robert H. E. Hudson, Ravi S. Menon, and Robert Bartha 1016
Published online 19 November 2012

T₂ Relaxometry with Indirect Echo Compensation from Highly Undersampled Data, Chuan Huang, Ali Bilgin, Tomoe Barr, and Maria I. Altbach 1026
Published online 19 November 2012

Inversion Recovery at 7 T in the Human Myocardium: Measurement of T₁, Inversion Efficiency and B₁⁺, Christopher T. Rodgers, Stefan K. Piechnik, Lance J. DelaBarre, Pierre-François Van de Moortele, Carl J. Snyder, Stefan Neubauer, Matthew D. Robson, and J. Thomas Vaughan 1038
Published online 29 November 2012

CONTENTS

MR-Based Field-of-View Extension in MR/PET: B_0 Homogenization Using Gradient Enhancement (HUGE), Jan O. Blumhagen, Ralf Ladebeck, Matthias Fenchel, and Klaus Scheffler..... 1047
Published online 30 November 2012

Constrained Source Space Imaging: Application to Fast, Region-Based Functional MRI, Mark Chiew and Simon J. Graham..... 1058
Published online 6 December 2012

Quantitative Characterization of Nuclear Overhauser Enhancement and Amide Proton Transfer Effects in the Human Brain at 7 Tesla, Dapeng Liu, Jinyuan Zhou, Rong Xue, Zhentao Zuo, Jing An, and Danny J. J. Wang..... 1070
Published online 13 December 2012

Notes

In Vivo Blood T_1 Measurements at 1.5 T, 3 T, and 7 T, X. Zhang, E. T. Petersen, E. Ghariq, J. B. De Vis, A. G. Webb, W. M. Teeuwisse, J. Hendrikse, and M. J. P. van Osch..... 1082
Published online 21 November 2012

Fast Direct Fourier Reconstruction of Radial and PROPELLER MRI Data Using the Chirp Transform Algorithm on Graphics Hardware, Yanqiu Feng, Yanli Song, Cong Wang, Xuegang Xin, Qianjin Feng, and Wufan Chen 1087
Published online 15 November 2012

■ PRECLINICAL AND CLINICAL IMAGING

Full Papers

Quantitative Magnetic Resonance Imaging Can Distinguish Remodeling Mechanisms After Acute Myocardial Infarction Based on the Severity of Ischemic Insult, Nilesh R. Ghugre, Mihaela Pop, Jennifer Barry, Kim A. Connelly, and Graham A. Wright..... 1095
Published online 19 November 2012

Assessing Breast Cancer Angiogenesis In Vivo: Which Susceptibility Contrast MRI Biomarkers Are Relevant?, Eugene Kim, Jana Cebulla, B. Douglas Ward, Kevin Rhie, Jiangyang Zhang, and Arvind P. Pathak 1106
Published online 6 December 2012

Effects of Isoflurane Anesthesia on Hyperpolarized ^{13}C Metabolic Measurements in Rat Brain, Sonal Josan, Ralph Hurd, Kelvin Billingsley, Lasitha Senadheera, Jae Mo Park, Yi-Fen Yen, Adolf Pfefferbaum, Daniel Spielman, and Dirk Mayer..... 1117
Published online 19 October 2012

Multislice Cardiac Arterial Spin Labeling Using Improved Myocardial Perfusion Quantification with Simultaneously Measured Blood Pool Input Function, Adrienne E. Campbell-Washburn, Hui Zhang, Bernard M. Siow, Anthony N. Price, Mark F. Lythgoe, Roger J. Ordidge, and David L. Thomas 1125
Published online 20 November 2012

Aortic Wall Shear Stress in Marfan Syndrome, Julia Geiger, Raoul Arnold, Lena Herzer, Daniel Hirtler, Zoran Stankovic, Max Russe, Mathias Langer, and Michael Markl..... 1137
Published online 20 November 2012

Note

Reproducibility and Biological Basis of In Vivo T_2^* Magnetic Resonance Imaging of Liver Metastasis of Colorectal Cancer, E. G. W. ter Voert, L. Heijmen, J. H. W. de Wilt, J. Bussink, C. J. A. Punt, H. W. M. van Laarhoven, and A. Heerschap..... 1145
Published online 19 November 2012

■ BIOPHYSICS AND BASIC BIOMEDICAL RESEARCH

Notes

Hematocrit and Oxygenation Dependence of Blood $^1\text{H}_2\text{O}$ T_1 at 7 Tesla, Ksenija Grgac, Peter C. M. van Zijl, and Qin Qin 1153
Published online 20 November 2012

Effect of Formalin Fixation on Biexponential Modeling of Diffusion Decay in Prostate Tissue, Roger Bourne, Andre Bongers, Ned Charles, Carl Power, Paul Sved, and Geoffrey Watson..... 1160
Published online 15 November 2012

■ COMPUTER PROCESSING AND MODELING

Note

Investigation of Different Boundary Treatment Methods in Monte-Carlo Simulations of Diffusion NMR, Haoyang Xing, Fang Lin, Qizhu Wu, and Qiyong Gong 1167
Published online 20 November 2012

■ ESR

Rapid Communication

Single Acquisition Quantitative Single-Point Electron Paramagnetic Resonance Imaging, Hyungseok Jang, Sankaran Subramanian, Nallathamby Devasahayam, Keita Saito, Shingo Matsumoto, Murali C. Krishna, and Alan B. McMillan 1173
Published online 1 August 2013