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Peer-reviewed Conference Presentations

Christopher Witte, Martin Kunth, Federica Rossella, Leif Schröder:

Monitoring and Preventing Rubidium Runaway in a Compact Xenon Hyperpolarizer for Hyper-CEST Applications
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Matthias Schnurr, Jörg Döpfert, Martin Kunth, Christopher Witte, Leif Schröder:

Depolarization-Time Mapping of Functionalized ¹²⁹Xe in Biomembranes Possessing Different Fluidity
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Federica Rossella, Matthias Schnurr, Stefan Klippel, Christopher Witte, Leif Schröder:

Hyper-CEST performance and cell internalization of fluorogenic ¹²⁹Xe-NMR biosensors
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Martin Kunth, Jörg Döpfert, Christopher Witte, Leif Schröder:

Simultaneous MRI Monitoring of Diffusion of Multiple Hyper-CEST Contrast Agents
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Stefan Klippel, Jörg Döpfert, Jabadurai Jayapaul, Martin Kunth, Federica Rossella, Matthias Schnurr, Christopher Witte, Leif Schröder, Christian Freund:

Xenon Based Hyper-CEST-MRI of Cryptophane Labeled Cells
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Jörg Döpfert, Christopher Witte, Martin Kunth, Leif Schröder:

Sub-sampling for Improved Use of Magnetization in Spectral Hyper-CEST Image Series
54th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2013

Matthias Schnurr, Christopher Witte, Jörg Döpfert, Martin Kunth, Stefan Klippel, Federica Rossella, Jabadurai Jayapaul, Leif Schröder:

High-sensitivity hyperpolarized ¹²⁹Xe-NMR for detecting differences in biomembrane fluidity
64. Mosbacher Kolloquium - Membranes in Motion, Mosbach, Germany, 2013

Martin Kunth, Jörg Döpfert, Leif Schröder:

Schnelle und selektive NMR-spektroskopische Lokalisierung von eingeschlossenem Xenon durch optimales Einbeziehen der reversiblen Bindung
15th Annual Meeting of the German Chapter of the ISMRM, Ulm, 2012

Peer-reviewed Conference Presentations (continued)

Leif Schröder, Jagoda Sloniec, Matthias Schnurr, Christopher Witte, Ute Resch-Genger, Andreas Hennig:

Hyper-CEST Signatures of Functionalized ^{129}Xe for Sensing Biomembrane Composition
20th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Melbourne, Australia, 2012

Federica Rossella, Christopher Witte, Leif Schröder:

Maintaining Hyper-CEST performance of a dye-labelled cryptophane cage
20th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Melbourne, Australia, 2012

Martin Kunth, Jörg Döpfert, Christopher Witte, Federica Rossella, Leif Schröder:

Fast and Selective MRI of Xenon Biosensors
20th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Melbourne, Australia, 2012

Martin Kunth, Christopher Witte, Leif Schröder:

Fringe Field Effects on Hyperpolarized ^{129}Xe for a Continuous Flow SEOP Setup
20th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Melbourne, Australia, 2012

Jörg Döpfert, Christopher Witte, Martin Kunth, Michael Beyermann, Leif Schröder:

Improved Evaluation of (Hyper-)CEST Images Using the Spectral Dimension
20th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Melbourne, Australia, 2012

Christopher Witte, Martin Kunth, Federica Rossella, and Leif Schröder:

Preventing rubidium runaway in a compact continuous flow SEOP hyperpolariser for xenon NMR
76th Spring Meeting of the German Physical Society, Fachverband Strahlenphysik und Strahlenwirkung, Berlin, 2012

Jörg Döpfert, Martin Kunth, Christopher Witte, Federica Rossella, Leif Schröder:

Fast and Selective MRI of Xenon Biosensors
76th Spring Meeting of the German Physical Society, Fachverband Strahlenphysik und Strahlenwirkung, Berlin, 2012

Federica Rossella, Sina Meyer, Vera Martos Riñao, Katarina Koschek, Christopher Witte, Martin Kunth, Jörg Rademann, Leif Schröder:

Design of a MMP-11-responsive Xe biosensor
XVI School of pure and Applied Biophysics - Multimodal Methods for Cell Imaging and Tracking, Venice, 2012

Christopher Witte, Martin Kunth, Federica Rossella, Leif Schröder:

Xenon based nuclear magnetic resonance biosensors using HyperCEST
XVI School of pure and Applied Biophysics - Multimodal Methods for Cell Imaging and Tracking, Venice, 2012

Franz Schilling, Leif Schröder, Krishnan Palaniappan, Sina Zapf, David Wemmer and Alexander Pines:

MRI Thermometry Based on Encapsulated Hyperpolarized Xenon
World Wide Magnetic Resonance Conference (joint EUROMAR/ISMAR conference), Florence, Italy, 2010

Peer-reviewed Conference Presentations (continued)

Franz Schilling, Leif Schröder, Kanna Palanniappan, Tyler Meldrum, Sina Zapf, David Wemmer and Alexander Pines:

MRI Thermometry Based on Encapsulated Hyperpolarized Xenon

74th Spring Meeting of the German Physical Society, Fachverband Strahlenphysik und Strahlenwirkung, Regensburg, 2010, (*Verhandl. DPG (VI)* **45**, ST 10.1 (2010))

Leif Schröder, Tyler Meldrum, Monica Smith, Franz Schilling, Philipp Denger, Sina Zapf, David Wemmer and Alexander Pines:

Xenon Biosensors for Multi-Purpose Molecular Imaging

Medical Physics and Biomedical Engineering World Congress 2009, Munich, Germany, 2009 (IFMBE Proceedings 25/XIII, pp. 176-179, 2009)

Monica Smith, Lana Chavez, Leif Schröder, David E. Wemmer, Alexander Pines:

Characterization of the Hyper-CEST Effect

50th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2009

Tyler Meldrum, Leif Schröder, Philipp Denger, David E. Wemmer, Alexander Pines:

Multiplexing with Xenon Biosensors in a Macroscopically-Homogeneous Phase

50th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2009

Leif Schröder, Tyler Meldrum, Monica Smith, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Temperature-controlled signal amplification for detection of functionalized xenon biosensors

World Molecular Imaging Congress, Nice, France, 2008

Monica Smith, Leif Schröder, Tyler Meldrum, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Temperature-sensitive imaging by means of exchangeable functionalized Xe

16th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Toronto, Canada, 2008

Tyler Meldrum, Monica Smith, Leif Schröder, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Pushing the detection limit of xenon biosensors into the nanomolar range

16th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Toronto, Canada, 2008

Leif Schröder, Tyler Meldrum, Monica Smith, Lana J. Chavez, Thomas J. Lowery, Christian Hilty, David E. Wemmer, Alexander Pines:

Sensing, amplification and activation approaches - Hyperpolarization

16th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Toronto, Canada, 2008

Tyler Meldrum, Leif Schröder, Monica Smith, Xin Zhou, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Temperature response of functionalized xenon biosensors and its application to ultra-sensitive NMR detection 49th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2008

Peer-reviewed Conference Presentations (continued)

Monica A. Smith, Lana Chavez, Leif Schröder, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Predicting the effect of biosensor concentration and temperature on hyper-CEST signal depletion
49th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2008

Leif Schröder, Monica Smith, Tyler Meldrum, Thomas J. Lowery, David E. Wemmer, Alexander Pines:

Temperature-sensitive magnetization transfer of exchangeable functionalized ¹²⁹Xe
49th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2008

Leif Schröder:

Hyper-CEST sensitivity enhancement for molecular imaging of functionalized xenon biosensor (in German)
10th Annual Meeting of the German Chapter of the ISMRM, Würzburg, 2007

Leif Schröder, Thomas J. Lowery, Christian Hilty, Lana Chavez, Sandra Garcia, David E. Wemmer, Alexander Pines:

Hyper-CEST sensitivity enhancement for ¹²⁹Xe molecular imaging
48th Experimental Nuclear Magnetic Resonance Conference (ENC), Daytona Beach, Florida, USA, 2007

Marc-André Weber, Holger Krakowski-Roosen, Wulf Hildebrandt, Leif Schröder, Ingrid Ionescu, Martin Krix, Ralf Kinscherf, Peter Bachert, Hans-Ulrich Kauczor, Marco Essig:

Assessment of metabolism and microcirculation of healthy skeletal muscles by functional magnetic resonance and ultrasound techniques
European Congress of Radiology, Vienna, Austria, 2007

Marc-André Weber, Holger Krakowski-Roosen, Leif Schröder, Martin Krix, Ralf Kinscherf, Peter Bachert, Hans-Ulrich Kauczor, Marco Essig, Wulf Hildebrandt:

Metabolism and microcirculation of skeletal muscle during tumor cachexia (in German)
Annual Meeting of the German Society for Neuroradiology, Frankfurt, Germany, 2007

Lana Joleen Chavez, Leif Schröder, Thomas J. Lowery, Christian Hilty, Sandra Garcia, Katherine Koen, David E. Wemmer, Alexander Pines:

Using the xenon biosensor as a selective MRI contrast agent
2006 Fall Meeting of the Materials Research Society (MRS), Boston, Massachusetts, 2006, (Talk MM2.4)

Leif Schröder, Thomas Jowery, Christian Hilty, David E. Wemmer, Alexander Pines:

High-sensitivity molecular imaging using a functionalized xenon biosensor
6th Annual Meeting of the Society for Molecular Imaging, Big Island, Hawaii, USA, 2006, (*Mol. Imaging* **5**(3): 218 (2006))

Leif Schröder, Thomas Jowery, Christian Hilty, David E. Wemmer, Alexander Pines

Sensitivity enhanced molecular imaging of the xenon biosensor
47th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2006, (Abstract E060590)

Peer-reviewed Conference Presentations (continued)

Leif Schröder, Christian Schmitz, Peter Bachert:

Molecular dynamics and information on possible sites of interaction of intramyocellular metabolites in vivo from resolved dipolar couplings in localized ^1H MR spectra
12th Annual Scientific Meeting of the International Society of Magnetic Resonance in Medicine (ISMRM), Kyoto, Japan, 2004, (*ISMRM Proc.* **12**, 170, (2004); Poster 788)

Leif Schröder, Christian Schmitz, Peter Bachert:

Residual dipolar couplings in in vivo ^1H MR spectra allow assessment of molecular dynamics of intramyocellular metabolites
45th Experimental Nuclear Magnetic Resonance Conference (ENC), Asilomar, California, USA, 2004, (Talk TOD 2:25)

Leif Schröder, Peter Bachert:

Hyperfine structure analysis of ^1H NMR spectra of calf muscle for assessment of molecular dynamics in vivo (in German)
68th Spring Meeting of the German Physical Society, Fachverband Strahlenphysik und Strahlenwirkung, München, 2004, (*Verhandl. DPG (VI)* **39**, 7/ST 2.4 (2004))

Leif Schröder, Christian Schmitz, Peter Bachert:

Molecular dynamics of intramyocellular metabolites from high-resolution in vivo ^1H NMR spectroscopy
Spring Meeting of the German Physical Society, Arbeitskreis Biologische Physik, Regensburg, 2004, (*Verhandl. DPG (VI)* **39**, 2/AKB 50.105 (2004))

Leif Schröder, Peter Bachert:

The atomic clock and molecular dynamics in muscle tissue: Applications of hyperfine interactions in in vivo ^1H NMR spectroscopy (in German)
34th Annual Meeting of the German Society for Magnetic Resonance in Medicine (DGMP), Heidelberg, 2003, (*Medizinische Physik 2003* (Semmler W, Schad L, Hrsg.), S. 62-63 (2003))

Leif Schröder, Peter Bachert:

Residual dipolar couplings of anisochronous spins in carnosine in human leg muscle in vivo
44th Experimental Nuclear Magnetic Resonance Conference (ENC), Savannah, Georgia, USA, 2003, (Poster PL 474)

Leif Schröder, Peter Bachert:

Residual dipolar couplings in ^1H MR spectra of intact muscle in vivo reveal information about differences in molecular mobility of carnosine and creatine
19th Annual Meeting, European Society of Magnetic Resonance in Medicine and Biology (ESMRMB), Cannes, France, 2002, (*MAGMA* **15** (Suppl 1): 270 (2002))

Leif Schröder, Peter Bachert:

Dipolar couplings of proton spins for in vivo investigation of calf muscle fiber structure with a 1.5 T MR tomograph (in German)
83th German Röntgen Congress, Wiesbaden, 2002, (*Fortschr. Röntgenstr.* **174** (Suppl): S. 273 (2002))

Leif Schröder, Peter Bachert:

Residual dipolar spin spin couplings for studying tissue microstructure (in German)
4th Annual Meeting of the German Chapter of the ISMRM, Zürich, 2001, (Abstract 41)