RF COILS FOR MRI

Editors | J. Thomas Vaughan | John R. Griffiths

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RF Coils for MRI
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The Encyclopedia of Magnetic Resonance (EMR) is based on the original printed Encyclopedia of Nuclear Magnetic Resonance, which was first published in 1996 with an update volume added in 2000. EMR was launched online in 2007 with all the material that had previously appeared in print. New updates have since been and will be added on a regular basis throughout the year to keep the content up to date with current developments. Nuclear was dropped from the title to reflect the increasing prominence of MRI and other medical applications. This allows the editors to expand beyond the traditional borders of NMR to MRI and MRS, as well as to EPR and other modalities. EMR covers all aspects of magnetic resonance, with articles on the fundamental principles, the techniques and their applications in all areas of physics, chemistry, biology and medicine for both general NMR and MRI. Additionally, articles on the history of the subject are included.

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RF Coils for MRI

Editors

J. Thomas Vaughan
University of Minnesota, Minneapolis, Minnesota, USA

John R. Griffiths
Cancer Research UK, Cambridge Research Institute, Cambridge, UK
International Advisory Board

David M. Grant (Chairman)
University of Utah
Salt Lake City, UT
USA

Isao Ando
Tokyo Institute of Technology
Tokyo
Japan

Adriaan Bax
National Institutes of Health
Bethesda, MD
USA

Chris Boesch
University of Bern
Bern
Switzerland

Paul A. Bottomley
Johns Hopkins University
Baltimore, MD
USA

William G. Bradley
UCSD Medical Center
San Diego, CA
USA

Graeme M. Bydder
UCSD Medical Center
San Diego, CA
USA

Paul T. Callaghan (deceased)
Victoria University of Wellington
Wellington
New Zealand

Richard R. Ernst
Eidgenössische Technische Hochschule (ETH)
Zürich
Switzerland

Ray Freeman
University of Cambridge
Cambridge
UK

Lucio Frydman
Weizmann Institute of Science
Rehovot
Israel

Maurice Goldman
Villebon sur Yvette
France

Harald Günther
Universität Siegen
Siegen
Germany

Herbert Y. Kressel
Harvard Medical School
Boston, MA
USA

C. Leon Partain
Vanderbilt University Medical Center
Nashville, TN
USA

Alexander Pines
University of California at Berkeley
Berkeley, CA
USA

George K. Radda
University of Oxford
Oxford
UK

Hans Wolfgang Spiess
Max-Planck Institute of Polymer Research
Mainz
Germany

Charles P. Slichter
University of Illinois at Urbana-Champaign
Urbana, IL
USA

John S. Waugh
Massachusetts Institute of Technology (MIT)
Cambridge, MA
USA

Bernd Wrackmeyer
Universität Bayreuth
Bayreuth
Germany

Kurt Wüthrich
The Scripps Research Institute
La Jolla, CA
USA
and
ETH Zürich
Zürich
Switzerland
Contents

Contributors ix

Series Preface xiii

Volume Preface xv

Part A: Surface Coils 1

1 An Historical Introduction to Surface Coils: The Early Days
   Joseph J. H. Ackerman 3

2 Radiofrequency Coils for NMR: A Peripatetic History of Their Twists and Turns
   Eiichi Fukushima 9

3 Quadrature Surface Coils
   Christopher M. Collins, Andrew G. Webb 17

4 Double-Tuned Surface Coils
   Barbara L. Beck 27

5 Nested Surface Coils for Multinuclear NMR
   Arthur W. Magill, Rolf Gruetter 39

6 Quadrature Transverse Electromagnetic (TEM) Surface Coils
   Nikolai I. Avdievich 51

Part B: Loop Arrays 63

7 Receiver Loop Arrays
   Steven M. Wright 65

8 Coil Array Design for Parallel Imaging: Theory and Applications
   Daniel K. Sodickson, Michael A. Ohliger, Riccardo Lattanzi, Graham C. Wiggins 81

9 Transceiver Loop Arrays
   Randy Duensing 101

10 Characterization of Multichannel Coil Arrays on the Benchtop
    Mark A. Griswold 111

Part C: Volume Coils 121

11 Birdcage Volume Coil Design
   Nicola De Zanche 123

12 Double-Tuned Birdcage Coils: Construction and Tuning
   Joseph Murphy-Boesch 137

13 TEM Body Coils
   J. Thomas Vaughan 147
<table>
<thead>
<tr>
<th>Part D: Special Purpose Coils</th>
<th>209</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 Catheter Coils</td>
<td></td>
</tr>
<tr>
<td>Ergin Atalar</td>
<td>211</td>
</tr>
<tr>
<td>19 Microcoils</td>
<td></td>
</tr>
<tr>
<td>Andrew G. Webb</td>
<td>225</td>
</tr>
<tr>
<td>20 Cryogenic and Superconducting Coils for MRI</td>
<td></td>
</tr>
<tr>
<td>Sven Junge</td>
<td>233</td>
</tr>
<tr>
<td>21 Litz Coils for High Resolution and Animal Probes, Especially for Double Resonance</td>
<td></td>
</tr>
<tr>
<td>F. David Doty, George Entzminger Jr</td>
<td>245</td>
</tr>
<tr>
<td>22 Millipede Coils</td>
<td></td>
</tr>
<tr>
<td>Ernest W. H. Wong</td>
<td>259</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part E: Coil Interface Circuits</th>
<th>269</th>
</tr>
</thead>
<tbody>
<tr>
<td>23 Receiver Design for MR</td>
<td></td>
</tr>
<tr>
<td>David I. Hoult</td>
<td>271</td>
</tr>
<tr>
<td>24 Radiofrequency Power Amplifiers for NMR and MRI</td>
<td></td>
</tr>
<tr>
<td>Daniel P. Myer</td>
<td>299</td>
</tr>
<tr>
<td>25 Impedance Matching and Baluns</td>
<td></td>
</tr>
<tr>
<td>David M. Peterson</td>
<td>315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part F: Coil Modeling and Evaluation</th>
<th>325</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 Radiofrequency MRI Coil Analysis: A Standard Procedure</td>
<td></td>
</tr>
<tr>
<td>Rostislav A. Lemdiasov, Reinhold Ludwig</td>
<td>327</td>
</tr>
<tr>
<td>27 Practical Electromagnetic Modeling Methods</td>
<td></td>
</tr>
<tr>
<td>Jian-Ming Jin</td>
<td>339</td>
</tr>
<tr>
<td>28 Radiofrequency Fields and SAR for Bird Cages</td>
<td></td>
</tr>
<tr>
<td>Tamer S. Ibrahim</td>
<td>363</td>
</tr>
<tr>
<td>29 RF Field Modeling for Double-Tuned Volume Coils</td>
<td></td>
</tr>
<tr>
<td>Wanzhan Liu</td>
<td>377</td>
</tr>
<tr>
<td>30 Radiofrequency Fields and SAR for Transverse Electromagnetic (TEM) Surface Coils</td>
<td></td>
</tr>
<tr>
<td>Can Eyup Akgun</td>
<td>387</td>
</tr>
<tr>
<td>31 TEM Coil Fields and SAR</td>
<td></td>
</tr>
<tr>
<td>Jinfeng Tian</td>
<td>397</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part G: RF Safety</th>
<th>407</th>
</tr>
</thead>
<tbody>
<tr>
<td>32 RF Device Safety and Compatibility</td>
<td></td>
</tr>
<tr>
<td>John Nyenhuis</td>
<td>409</td>
</tr>
<tr>
<td>33 Radiofrequency Heating Models and Measurements</td>
<td></td>
</tr>
<tr>
<td>Devashish Shrivastava, J. Thomas Vaughan</td>
<td>425</td>
</tr>
</tbody>
</table>

Index 437
Contributors

Joseph J. H. Ackerman  
Department of Chemistry, Campus Box 1134, Washington University,  
Saint Louis, MO 63130, USA  
Chapter 1: An Historical Introduction to Surface Coils: The Early Days

Gregor Adriany  
Department of Radiology, Center for Magnetic Resonance Research,  
University of Minnesota, Minneapolis, MN 55455, USA  
Chapter 15: TEM Transceiver Head Array Coils for Ultra High  
Magnetic Fields

Can Eyup Akgun  
Center for Magnetic Resonance Research, University of Minnesota,  
Minneapolis, MN 55455, USA  
Chapter 30: Radiofrequency Fields and SAR for Transverse  
Electromagnetic (TEM) Surface Coils

Ergin Atalar  
Electrical & Electronics Engineering Department, Bilkent University,  
Ankara, TR-06800, Turkey  
Chapter 18: Catheter Coils

Nikolai I. Avdievich  
Department of Neurosurgery, Yale University, New Haven, CT 06520,  
USA  
Chapter 6: Quadrature Transverse Electromagnetic (TEM) Surface  
Coils  
Chapter 16: Transverse Electromagnetic (TEM) Coils for Extremities

Barbara L. Beck  
McKnight Brain Institute, University of Florida, Gainesville, FL 32610,  
USA  
Chapter 4: Double-Tuned Surface Coils

C. A. T. van den Berg  
Department of Radiotherapy, University Medical Center Utrecht, Utrecht  
3508GA, The Netherlands  
Chapter 17: Antennas as Surface Array Elements for Body Imaging at  
Ultra-high Field Strengths

Christopher M. Collins  
Department of Radiology, The Pennsylvania State University, College of  
Medicine, Hershey, PA 17033, USA  
Chapter 3: Quadrature Surface Coils

F. David Doty  
Doty Scientific Inc., Columbia, SC 29229, USA  
Chapter 21: Litz Coils for High Resolution and Animal Probes,  
Especially for Double Resonance
Contributors

Randy Duensing
Invivo Corporation, Gainesville, FL 32608, USA
Chapter 9: Transceiver Loop Arrays

George Entzminger Jr
Doty Scientific Inc., Columbia, SC 29229, USA
Chapter 21: Litz Coils for High Resolution and Animal Probes, Especially for Double Resonance

Eiichi Fukushima
ABQMR, Albuquerque, NM 87106, USA
Chapter 2: Radiofrequency Coils for NMR: A Peripatetic History of Their Twists and Turns

Mark A. Griswold
Department of Radiology, Case Western Reserve University, Cleveland, OH 44106, USA
Chapter 10: Characterization of Multichannel Coil Arrays on the Benchtop

Rolf Gruetter
Laboratory of Functional and Metabolic Imaging, Ecole Polytechnique Federale de Lausanne, CH-1015 Lausanne, Switzerland
Department of Radiology, University of Lausanne, CH-1015 Lausanne, Switzerland
Department of Radiology, University of Geneva, CH-1211 Geneva, Switzerland
Chapter 5: Nested Surface Coils for Multinuclear NMR

David I. Hoult
Institute for Biodiagnostics, National Research Council Canada, Winnipeg, Manitoba, MB R3B 1Y6, Canada
Chapter 23: Receiver Design for MR

Tamer S. Ibrahim
Departments of Bioengineering and Radiology, University of Pittsburgh, Pittsburgh, PA 15213, USA
Chapter 28: Radiofrequency Fields and SAR for Bird Cages

Jian-Ming Jin
Department of Electrical and Computer Engineering, University of Illinois, 1406 West Green Street, Urbana, IL 61801, USA
Chapter 27: Practical Electromagnetic Modeling Methods

Sven Junge
Bruker Biospin MRI GmbH, Ettlingen 76275, Germany
Chapter 20: Cryogenic and Superconducting Coils for MRI

Riccardo Lattanzi
New York University School of Medicine, New York, NY 10016, USA
Chapter 8: Coil Array Design for Parallel Imaging: Theory and Applications

Rostislav A. Lemdiasov
Insight Neuroimaging Systems, 11 Canterbury St., Worcester, MA 01610, USA
Chapter 26: Radiofrequency MRI Coil Analysis: A Standard Procedure

Wanzhan Liu
Medtronic Inc., Minneapolis, MN 55126, USA
Chapter 29: RF Field Modeling for Double-Tuned Volume Coils
<table>
<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Chapter/Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reinhold Ludwig</td>
<td>ECE Department, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609, USA</td>
<td>Chapter 26: Radiofrequency MRI Coil Analysis: A Standard Procedure</td>
</tr>
<tr>
<td>Arthur W. Magill</td>
<td>Laboratory of Functional and Metabolic Imaging, Ecole Polytechnique Federale de Lausanne, CH-1015 Lausanne, Switzerland</td>
<td>Department of Radiology, University of Lausanne, CH-1015 Lausanne, Switzerland</td>
</tr>
<tr>
<td></td>
<td>Department of Radiology, University of Geneva, CH-1211 Geneva, Switzerland</td>
<td></td>
</tr>
<tr>
<td>Joseph Murphy-Boesch</td>
<td>National Institutes of Health, Bethesda, MD 20892, USA</td>
<td>Chapter 5: Nested Surface Coils for Multinuclear NMR</td>
</tr>
<tr>
<td>Daniel P. Myer</td>
<td>Communication Power Corporation (CPC), Hauppauge, NY 11788, USA</td>
<td>Chapter 12: Double-Tuned Birdcage Coils: Construction and Tuning</td>
</tr>
<tr>
<td>John Nyenhuis</td>
<td>School of Electrical and Computer Engineering, Purdue University, West Lafayette, IN 47907, USA</td>
<td>Chapter 31: TEM Coil Fields and SAR</td>
</tr>
<tr>
<td>Michael A. Ohliger</td>
<td>University of California San Francisco, San Francisco, CA 94143, USA</td>
<td>Chapter 8: Coil Array Design for Parallel Imaging: Theory and Applications</td>
</tr>
<tr>
<td>David M. Peterson</td>
<td>McKnight Brain Institute, University of Florida, Gainesville, FL 32610, USA</td>
<td>Chapter 25: Impedance Matching and Baluns</td>
</tr>
<tr>
<td>A. J. E. Raaijmakers</td>
<td>Department of Radiotherapy, University Medical Center Utrecht, Utrecht 3508GA, The Netherlands</td>
<td>Chapter 17: Antennas as Surface Array Elements for Body Imaging at Ultra-high Field Strengths</td>
</tr>
<tr>
<td>Devashish Shrivastava</td>
<td>Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN 55455, USA</td>
<td>Chapter 33: Radiofrequency Heating Models and Measurements</td>
</tr>
<tr>
<td>Carl Snyder</td>
<td>Department of Radiology, Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN 55455, USA</td>
<td>Chapter 14: TEM Arrays, Design and Implementation</td>
</tr>
<tr>
<td>Daniel K. Sodickson</td>
<td>New York University School of Medicine, New York, NY 10016, USA</td>
<td>Chapter 8: Coil Array Design for Parallel Imaging: Theory and Applications</td>
</tr>
<tr>
<td>Jinfeng Tian</td>
<td>Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN 55455, USA</td>
<td>Chapter 31: TEM Coil Fields and SAR</td>
</tr>
</tbody>
</table>
xii  Contributors

J. Thomas Vaughan  Center for Magnetic Resonance Research, University of Minnesota, Minneapolis, MN 55455, USA
Chapter 13: TEM Body Coils
Chapter 33: Radiofrequency Heating Models and Measurements

Andrew G. Webb  Department of Radiology, Leiden University Medical Center, Leiden 2333, The Netherlands
Chapter 3: Quadrature Surface Coils
Chapter 19: Microcoils

Graham C. Wiggins  New York University School of Medicine, New York, NY 10016, USA
Chapter 8: Coil Array Design for Parallel Imaging: Theory and Applications

Ernest W. H. Wong  Agilent Technologies, Santa Clara, CA 95051, USA
Chapter 22: Millipede Coils

Steven M. Wright  Texas A&M University, College Station, TX 77845, USA
Chapter 7: Receiver Loop Arrays

Nicola De Zanche  Alberta Health Services and University of Alberta, Edmonton, Alberta, AB T6G 1Z2, Canada
Chapter 11: Birdcage Volume Coil Design
Series Preface

The *Encyclopedia of Nuclear Magnetic Resonance* was published in eight volumes in 1996, in part to celebrate the fiftieth anniversary of the first publications in NMR in January 1946. Volume 1 contained an historical overview and ca. 200 short personal articles by prominent NMR practitioners, while the remaining seven volumes comprise ca. 500 articles on a wide variety of topics in NMR (including MRI). Two “spin-off” volumes incorporating the articles on MRI and MRS (together with some new ones) were published in 2000 and a ninth volume was brought out in 2002. In 2006, the decision was taken to publish all the articles electronically (i.e. on the World Wide Web) and this was carried out in 2007. Since then, new articles have been placed on the web every three months and a number of the original articles have been updated. This process is continuing. The overall title has been changed to the *Encyclopedia of Magnetic Resonance* to allow for future articles on EPR and to accommodate the sensitivities of medical applications.

The existence of this large number of articles, written by experts in various fields, is enabling a new concept to be implemented, namely the publication of a series of printed handbooks on specific areas of NMR and MRI. The chapters of each of these handbooks will comprise a carefully chosen selection of Encyclopedia articles relevant to the area in question. In consultation with the Editorial Board, the handbooks are coherently planned in advance by specially selected editors. New articles are written and existing articles are updated to give appropriate complete coverage of the total area. The handbooks are intended to be of value and interest to research students, postdoctoral fellows, and other researchers learning about the topic in question and undertaking relevant experiments, whether in academia or industry.

Robin K. Harris  
*University of Durham, Durham, UK*

Roderick E. Wasylishen  
*University of Alberta, Edmonton, Alberta, Canada*

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