Contents

Editorial 1

NMR spectrometry in Lithuania: a brief historical overview by L. Kimtys 2

Ampere Biological Solid-State NMR School 5

Executive Officers and Honorary Members of the AMPERE Bureau 7

Future conferences and AMPERE events 13

If you would like to become a member of the AMPERE Group, you can register online under: www.ampere-society.org

Correspondence address:
ETH Zurich, Laboratory of Physical Chemistry, HCI F 227
Vladimir Prelog Weg 2, 8093 Zurich, Switzerland
Mail: contact@ampere-society.org

Publisher: Gunnar Jeschke, ETH Zurich, Switzerland
Editorial

Dear AMPERE colleagues,

In the current political turmoil in Europe it may be easy to forget that the situation was much more difficult during the Cold War. At that time Groupement AMPERE was bridging the divide between East and West and I believe that as scientists we could still set a good example to our bickering politicians nowadays. To remind you of the more difficult past and the achievements that were possible nevertheless, this issue contains the account on the first fully home-built high resolution NMR spectrometer of Vilnius University in 1965, by Prof. Liudvikas Kimtys (p.2). If you want to contribute a historical piece of your own, please contact us at contact@ampere-society.org

Turning to the future, education of the young generation in our field becomes ever more important with increasing complexity of our research. The newly established subdivision „Biological Solid-State NMR“ organizes the 6th international training school on solid-state NMR, at the Universitat de les Illes Balears in Palma de Mallorca, from October 9-14, 2016 (p.5). You find more information on: http://ampereschool2016.org/

Please note that at EUROMAR 2016, the AMPERE Committee and the General Assembly will vote on revised statutes of Groupement AMPERE. The draft was already published in Bulletin No. 258/259 (Spring/Summer 2015). If you don’t have the issue at hand, you can find it on our homepage ampere-society.org.

AMPERE also offers the possibility to announce open positions online. For this, please send an e-mail with the information including to job@ampere-society.org. If you want to have your favourite conference listed, please send information on date, location, and homepage to contact@ampere-society.org.

Gunnar Jeschke
Secretary General of Groupement AMPERE
NMR spectrometry in Lithuania: a brief historical overview

Liudvikas Kimtys
Faculty of Physics, Vilnius University, Lithuania

The idea to use NMR spectrometry in molecular studies in Lithuania (1940-1990 - republic of the former Soviet Union) was first put forward in 1959 at Vilnius University by the Head of Department of General Physics and Spectroscopy Dr. Henrikas Jonaitis, who really was a pioneer in experimental molecular spectroscopy here. The NMR project gained momentum in 1961 when physicist Giedrius A. Misiūnas (highly gifted in radio electronics) was invited from Šiauliai Pedagogical Institute (now University) to lead the creation of the spectrometer. He managed to attract enthusiastic students (I. Požėla and L. Kimtys) for the hardware manufacturing jobs. Within a few years the idea had been implemented and the spectrometer became operative in 1965. It was the first high-resolution 23 MHz CW $^1$H NMR spectrometer in Lithuania. Globally, it was not an outstanding achievement, but at that time most research institutes (Prague, Leipzig, Warsaw, Krakow, Moscow, Kazan, Leningrad, etc.) still used home-built low frequency instruments.

Our spectrometer was quite efficiently used until 1975 for investigating intermolecular interactions and molecular associations. All measurements for the first PhD NMR dissertations in Lithuania were performed on this spectrometer: L. Kimtys (1971), G.A. Misiūnas (1972), P. Mikulskis (1974). Spectrometric data was highly helpful for the researchers of organic chemistry of the Faculty of Chemistry (V. Daukšas, P. Vainilavičius, G.Dienys, R. Martinkus et al.) as well.
Part of the 23 MHz CW NMR spectrometer built at Vilnius University in 1965: the signal registration system and electromagnet (the total weight of it - ca. 1200 kg, 28,000 strands of 1.8 mm copper wire, weight - 380 kg.). All blocks of the spectrometer were located in the 16 m² room.

The splitting of \(-\text{CH}_2-\) line of ethanol (due to the first and second order \(^1\text{H}-^1\text{H}\) spin-spin coupling) that was achieved in 1965 indicated sufficiently high resolution of the 23 MHz NMR spectrometer.
The first industrially manufactured CW spectrometers were purchased in Lithuania (Vilnius University, Institute of Biochemistry and Kaunas Polytechnic Institute (now Kaunas University of Technology) only in 1973. Unfortunately, those were only of a medium instrumental level for that time. They were produced by the Czechoslovak company „Tesla“ and were suitable only for \(^1\)H and \(^{19}\)F NMR measurements at 80 MHz. In 1989 the University bought a 80 MHz pulse Fourier spectrometer of the same brand, which has already been suitable for \(^{13}\)C measurements as well. A used, but still well functioning 300 MHz \(^1\)H and \(^{13}\)C NMR spectrometer was donated by the USA in 2003 and efficiently used at the Faculty of Chemistry until 2012.

Despite the poor local experimental NMR facilities some scientists of Vilnius University managed to carry out numerous valuable investigations by cooperating with “rich” experimental laboratories in Norway, Sweden, Germany, Poland, etc. The University researchers published over 300 scientific publications and presented more than 70 reports at specialized conferences, also published the first Lithuanian text books (“Radiospectroscopy”- 1985, “Magnetic resonance spectrometry” - 2000). Professors L. Kimtys (1993) and V. Balevičius (2013) have won the Lithuanian National Science Prizes.

Thanks to the significant EU financial support, the real breakthrough for Lithuanian NMR spectrometry was achieved in 2012, when modern NMR devices were installed: two 400 MHz instruments at Vilnius University and a 700 MHz instrument at Kaunas University of Technology (all from Bruker). One 400 MHz spectrometer has the flexible facilities for investigations in a wide temperature range of liquid as well as solid samples. Together with the modern NMR spectrometers, a state of the art pulsed EPR spectrometer (Bruker E-580) was installed as well. The new instrumentation inspired new enthusiasm in the development of magnetic resonance spectrometry research at Vilnius University, attracting gifted undergraduate, graduate and PhD students.
Following the successful tradition of earlier meetings in Germany (2006, 2014), Denmark (2008), the Netherlands (2010) and Czech Republic (2012), the 6th international training school on solid-state NMR will be organized this year at the Universitat de les Illes Balears in Palma de Mallorca, Spain, from October 9-14, 2016.

The Ampere Biological Solid-State NMR School is a course intended for Ph.D. students and postdoctoral scientists with research interests and initial expertise in solid-state NMR spectroscopy.

The school will start on Sunday with a social gathering and dinner. School hours will be 9h30–18h00 all days except Wednesday afternoon, which will be free. Poster sessions are planned on Tuesday and Thursday night. We intend to reserve ample time for social gathering and scientific interactions in order to allow for close contacts between the school attendees and the speakers.
In order to attend the school you need to be a member of the Groupement Ampere. If you already are a member, the course registration fee is 30 Euro. If you are not, the course registration fee is 60 Euro and includes the Ampere membership for the year 2017.

For a detailed program and further information regarding the upcoming registration see:
http://ampereschool2016.org

Organizing committee;
Dr. Anja Böckmann       CNRS/Université de Lyon, France
Prof. Dr. Beat Meier     ETH Zürich, Switzerland
Prof. Dr. Matthias Ernst ETH Zürich, Switzerland
Prof. Dr. Hartmut Oschkinat FMP Berlin, Germany

Local organizing committee;
Dr. Gabriel Martorell     UIB, Spain
Dr. Rosa Maria Gomila Ribas UIB, Spain
Dr. Sebastian Albertí    UIB, Spain

Speakers;
Prof. Marc Baldus (Utrecht) Dr. Anja Böckmann (Lyon)
Prof. Enrica Bordignon (Berlin) Dr. Frank Engelke (Karlsruhe)
Prof. Matthias Ernst (ETH Zürich) Prof. Bob Griffin (Boston)
Prof. Huub de Groot (Leiden) Dr. Malene Jensen (Grenoble)
Prof. P.K. Madhu (TIFR Mumbai) Prof. Beat H. Meier (ETH Zürich)
Prof. Hartmut Oschkinat (FMP Berlin) Prof. Bernd Reif (TU München)
Prof. Thomas Vosegaard (Aarhus) Dr. Andrea Dessen (Grenoble)
Executive Officers and Honorary Members of the AMPERE Bureau

The AMPERE BUREAU includes the executive officers (which take the responsibility and the representation of the Groupement between the meeting of the committee), the honorary members of the Bureau and the organizers of forthcoming meetings.

Executive Officers 2014 - 2015

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>B. Blümich</td>
</tr>
<tr>
<td>Vice Presidents</td>
<td>J. Dolinšek</td>
</tr>
<tr>
<td></td>
<td>A. Böckmann</td>
</tr>
<tr>
<td>Secretary General</td>
<td>G. Jeschke</td>
</tr>
<tr>
<td>Executive Secretary</td>
<td>M. Ernst</td>
</tr>
<tr>
<td>EF-EPR Representative</td>
<td>G. Smith</td>
</tr>
<tr>
<td>SRMR Representative</td>
<td>M. Johns</td>
</tr>
<tr>
<td>MRPM Representative</td>
<td>C. Arns</td>
</tr>
<tr>
<td>MR-FOOD Representative:</td>
<td>J. van Duynhoven</td>
</tr>
<tr>
<td>EUROMAR Representative</td>
<td>L. Frydman</td>
</tr>
<tr>
<td>EUROMAR Treasurer</td>
<td>C. Redfield</td>
</tr>
<tr>
<td>Past President</td>
<td>B.H. Meier</td>
</tr>
<tr>
<td>Honorary Member</td>
<td>H.W. Spiess</td>
</tr>
<tr>
<td>Honorary Member</td>
<td>St. Jurga</td>
</tr>
</tbody>
</table>
AMPERE Committee

J-P. AMOUREUX
Université de Lille, Lab: LCPS, Bat. C7, USTL, F-59652 VILLENEUVE D’ASCQ, France

V. ATSARKIN
Russian Academy of Sciences, Institute of Radio Engineering & Electronics, 11 Mokhovaya Str., RU-125009 MOSKOW, Russia

J. BANYS
Vilnius University, Department of Radiophysics, Saulétekio 9 2040 VILNIUS, Lithuania

A.-L. BARRA
CNRS, Laboratoire National des Champs Magnétiques Intenses, 25 rue des Martyrs B.P. 166, 38042 GRENOBLE cedex 9 France

M. BLACKLEDGE
Institut de Biologie Structurale 41 Rue Jules Horowitz 38027 GRENOBLE, France

J.S. BLICHARSKI
Jagellonian University, Institute of Physics, ul. Reymonta 4, PL-30-059 KRAKOW, Poland

R. BOELENS
Bijvoet Center for Biomolecular Research, Utrecht University, Padualaan 8, NL-3584 CH UTRECHT, The Netherlands

R. BOSCAINO
Instituto di Fisica, Università di Palermo, Via Archirafi 36 I-90123 PALERMO, Italia

St. CALDARELLI
CRRMN Université d’Aix Marseille III, case 511, Faculté de Sciences, Site de Saint-Jerôme, F-13013 MARSEILLE, France

P. CARRETTA
Dipartimento di Fisica „A. Volta”, Via Bassi, 6, 27100- PAVIA, Italy

V. CHIZHIK
University of St. Petersburg, Quantum Magnet.Phen.,Fac.of Physics, RU-198504 ST. PETERSBURG, Russia

D.E. DEMCO
RWTH Aachen, Makromolekulare Chemie, Worringerweg 1, D-52056 AACHEN, Germany

J. DOLIŇŠEK
Institute Jozef Stefan, Jamova 39, SI - 1000 LJUBLJANA, Slovenia

L. EMSLEY
Ecole Normale Supérieure de Lyon, 46 Allée d’Italie, F-69364 LYON, France

P. FANTAZZINI
Università di Bologna, Dipartimento di Fisica, Via Irnerio 46, I-40126 BOLOGNA, Italy

R. FARRANT
Glo xoSmithKline, Analytical Sciences, Gunnels Wood Road, STEVENAGE SG1 2NY, U.K.

I. FELLI
Department of Chemistry and Center for Magnetic Resonance (CERM), University of Florence Via L. Sacconi 6 50019 SESTO FIORENTINO, (FI), Italy

N. FERRER ANGLADA
Departament de Física Aplicada, Universitat Politecnica de Catalunya, Jordi Girona Salgado,s/n., Campus Nord-modul B4, 08034 BARCELONA, España

J. FRAISSARD
Lab. „Physique Chantique” - ESPCI, 10 Rue Vauqelin, F-75005 PARIS, France

L. FRYDMAN
Weizmann Institute of Science, Department of Chemical Physics, 76100 Rehovot, Israel,
A. SAMOSON
National Inst. of Chemical Physics and Biophysics, Akadeemia tee 23, 12618 Tallinn, Estonia

J. SPEVACEK
Inst. of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, 162 - 06 PRAGUE 6, Czechia

D. SUTER
Universität Dortmund, Fachbereich Physik, D-44221 DORTMUND, Germany

V.V. TELKKI
Department of Physics, University of Oulu, P.O. Box 3000, 90014 OULU, Finland

C. THIELE
Technische Universität Darmstadt, Alarich-Weiss-Strasse 16, 64287 DARMSTADT, Germany

J. TRITT-GOC
Institute of Molecular Physics, Polish Academy of Sciences, M. Smoluchowskiego 17, 60-179 POZNAN, Poland

S. VAN DOORSLAER
SIJAC Laboratory, University of Antwerp, Universiteitsplein 1, B-2610 WILRIJK, Belgium

A. ZHELIA.SKOA
Inst. of Solid State Physics, Bulgarian Academy of Sciences, Liquid Crystal Dep., 72 Tzarigradsko Chaussee Blvd., BG - 1784 SOFIA, Bulgaria

Emeritus members

L. KIMTYS
Department of Physics, Vilnius University, Universiteto Str. 3, VILNIUS 2734, Lithuania

F. MILIA
NRC Demokritos, Physics Department, Aghia Paraskevi Attikis, GR - 15310 ATHENS, Greece

J. HENNEL, Inst. of Nucl. Phys. Ul. Radzikowskiego 152, PL - 31342 KRAKOW 23, Poland

Honorary members

R.R. ERNST
Laboratorium für Physikalische Chemie, ETH Zürich, CH-8093 ZURICH, Switzerland

J. JEENER
Université Libre - Plaine, CP 223, Bld. du Triomphe, B - 1050 BRUXELLES, Belgium

P. MANSFIELD
University of Nottingham, Magnetic Resonance Centre, NOTTINGHAM NG7 2RD, U.K.

K.A. MÜLLER
IBM Zurich Research Laboratory, Säumerstrasse 4, CH - 8803 RÜSCHLIKON, Switzerland

K. WUETHRICH
Inst. f. Molekularbiologie u. Biophysik, ETH Zürich, CH-8093 ZURICH, Switzerland
Guest members

A. PINES
Dept. of Chemistry, University of California, BERKELEY CA 94720, USA, Delegate of ISMAR

J.A. NORRIS
Dept. of Chemistry, University of Chicago, South Ellis Ave. CHICAGO IL 6037-1403, USA
Delegate of the International EPR Society

K.A. McLAUCHLAN
Physical Chemistry Laboratory, Oxford University, South Parks Road, OXFORD OX1 3QZ, UK
Delegate of the International EPR Society

D. AILION
Dept. of Physics, Univ. of UTAH, 304 J. Fletcher Building, SALT-LAKE-CITY 84112, Utah, USA

J. BJORKSTAM
Electrical Engineering (FT-10), University of Washington, 98195 SEATTLE WA, USA

S.H. CHOH
Department of Physics, Korea University, SEOUL 136-701, Republic of Korea

D. FIAT
University of Illinois, Dept. of Physiology and Biophysics, POB 6998, CHICAGO IL 60680, USA

E. FUKUSHIMA
ABQMR, 2301 Yale Blvd., SE, Suite C2, ALBUQUERQUE, NM 87106, USA

E.L. HAHN
Physics Department, University of California Berkeley, BERKELEY CA 94720, USA

O. JARDETSKY
Stanford University, Magnetic Resonance Lab., STANFORD, CA 94305-5055, USA

C.P. SLICHTER
Dept. of Physics, University of Illinois, 1110 W. Green Street, URBANA IL 61801, USA
## Future conferences

### Ampere events 2016

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food MR</td>
<td>Karlsruhe (Germany)</td>
<td>June 7-10 2016</td>
</tr>
<tr>
<td>Ampere NMR School</td>
<td>Zakopane (Poland)</td>
<td>June 12-18 2016</td>
</tr>
<tr>
<td>Euromar 2016</td>
<td>Aarhus (Denmark)</td>
<td>July 3-7 2016</td>
</tr>
<tr>
<td>MRPM13</td>
<td>Bologna (Italy)</td>
<td>September 4-8 2016</td>
</tr>
<tr>
<td>Ampere Biological Solid-State NMR School</td>
<td>Palma de Mallorca (Spain)</td>
<td>October 9-14 2016</td>
</tr>
</tbody>
</table>

### 2017

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Euromar 2017</td>
<td>Warwaw (Poland)</td>
<td>July 2-6 2017</td>
</tr>
</tbody>
</table>

### Other events 2016

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>49th Annual International Meeting of the ESR Spectroscopy Group</td>
<td>Colchester (England)</td>
<td>April 3-7 2016</td>
</tr>
<tr>
<td>57th ENC</td>
<td>Pittsburgh (USA)</td>
<td>April 10-15 2016</td>
</tr>
<tr>
<td>Interpore Conference</td>
<td>Cincinnati (USA)</td>
<td>Mai 9-11 2016</td>
</tr>
<tr>
<td>ICMRBS 2016</td>
<td>Kyoto (Japan)</td>
<td>August 21-26 2016</td>
</tr>
<tr>
<td>APES 2016</td>
<td>Irkutsk (Russia)</td>
<td>August 28 - Sept. 2, 2016</td>
</tr>
</tbody>
</table>

### 2017

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>20th ISMAR conference</td>
<td>Québec City (Canada)</td>
<td>July 23-28 2017</td>
</tr>
</tbody>
</table>