





Mitteilungsblatt der Fachgruppe Magnetische Resonanzspektroskopie der Gesellschaft Deutscher Chemiker

März 2006

09 / 2006

Arthur Schweiger (1946-2006)



Arthur Schweiger,

ordentlicher Professor am Laboratorium für Physikalische Chemie der ETH Zürich ist am 4. Januar 2006 unerwartet im Alter von nur 59 Jahren gestorben.

Nach einem Studium der Physik an der ETH Zürich wandte er sich bereits in seiner Dissertation in der Gruppe von Hans Günthard der EPR-Spektroskopie zu. Von Anfang an kombinierte er ein tiefes intuitives Verständnis der Spinphysik, ein Faible für den Selbstbau leistungsfähigen Spektrometern und die Anwendung auf biologisch oder chemisch Übergangsmetallkomplexe interessante miteinander. Dies trug ihm zunächst die Medaille der ETH für seine Dissertation, dann den prestigeträchtigen Werner-Preis Chemischen der Schweizerischen Gesellschaft und schließlich mit dem Zavoisky-Preis 1993, der Bruker Lecture der Royal Society for Chemistry 1994 und Goldmedaille der International EPR/ESR Society 1998 die höchsten Ehrungen in seinem Fachgebiet ein.

Sein klarer Denkstil und sein ständiges Bemühen um didaktische Details haben maßgeblich dazu beigetragen, dass ein Verständnis für die Mysterien der PulsEPR-Spektroskopie auf nicht eine Handvoll beschränkt Physiker blieb. sondern dass Technik diese heute zunehmend auch von Chemikern und Biologen angewandt wird. Mehrere Übersichtsartikel, Vorlesungen auf allen europäischen Sommerschulen über EPR und das Standardwerk über Puls-EPR-Spektroskopie legen davon Zeugnis ab. Arthur Schweiger war aber nicht nur ein führender Wissenschaftler auf seinem Gebiet. Sein hochentwickeltes ästhetisches Empfinden, ein ständiges Bemühen um Perfektion und seine äußerste Bescheidenheit verliehen ihm einen Zauber, so dass sich Mitarbeiter und Kollegen als seine Freunde empfanden, ohne dass er dadurch an Autorität verloren hätte. Mit Arthur Schweiger haben wir einen stillen Leitwolf unseres Fachgebiets werden verloren. Wir weiter Richtungen verfolgen, die er uns gewiesen hat

Gunnar Jeschke, MPI für Polymerforschung Mainz

Ernst Awards 2006

In 1998 Prof. R. R. Ernst received the honorary membership of the "Fachgruppe Magnetische Resonanzspektroskopie". Since then, the German Chemical Society (GDCh) awards three "Ernst Awards" to eminent Ph.D. students from Germany and abroad.

Candidates should be Ph.D. students on the basis of their genuine published work; the candidate's name should be first on the authors' list. The papers must have been refereed and accepted by an international scientific journal. Deadline for submission of manuscripts is **July 15th**, **2006**; acceptance letters from journal referees may be supplied until August 31th, 2006.

All manuscripts will be evaluated by members of the scientific committee and should be send in electronic form to

Prof. Dr. S. Berger stberger@rz.uni-leipzig.de

The Ernst Awards will be presented during the Annual Meeting of the Discussion Group Meeting in Tübingen and involve a lecture by the winners.

22nd ICMRBS

Dear collegue,

I am happy to invite you on behalf of the Organizing Committee of "International Conference on Magnetic Resonance in Biological Systems (ICMRBS)" to attend the forthcoming 22nd ICMRBS to be held in Göttingen, Germany, during August 20-25, 2006.

The biennial ICMRBS has become the major venue for presentation of advances in nuclear and electron magnetic resonance (NMR & EPR & MRI) studies of the dynamics chemical structure. and of properties important classes biomolecules. The ICMRBS is the one conference that brings together experts from high-resolution NMR, solid state NMR, EPR, in vivo magnetic resonance spectroscopy and imaging, and developers of instrumentation, techniques, software, and databases.

Symposia at this ICMRBS are designed to continue the fruitful cross-fertilization of ideas that has been so successful in driving the spectacular advances in this field. ICMRBS 2006 will have sessions in which lectures from liquid state, solid state and EPR and imaging are focused on certain areas of applications.

Registration and abstract submission are open, please go to

http://www.icmrbs2006.org

With my best regards, Yours sincerely Christian Griesinger

Founders Medal

The 3rd Founders Medal will be presented at the meeting in Goettingen. The Founders Medal recognizes excellent contributions by young investigators to the development and/or progress in the area of magnetic resonance in biological systems. The first two recipients were Prof. Lewis E. Kay and Dr. Nico Tjandra. Nominations for the next recipient are now being accepted. The deadline for nominations is May 1, 2006. The recipient will present a special lecture at the meeting in Goettingen. Please visit the ICMRBS site (http://www.icmrbs.org/) for information on the medal and the nominating process.

European NMR projects

Dear friends and colleagues,

The European commission is supporting NMR Integrated Infrastructure (formerly Large Scale Facilities). Starting March 1st, 2006 will enable us to invite you again for research projects at our facility in Frankfurt.

The Center of Biomolecular Magnetic Resonance in Frankfurt (BMRZ) offers access to NMR spectrometers at 900, 800 and 700 MHz, three instruments at 600 MHz, two at 500 MHz and 400MHz for solution NMR, plus 850 MHz (end 2006) 600 MHz and two 400MHz widebore systems for solids. In addition, four high field EPR machines are available (www.bmrz.uni-frankfurt.de).

The liquid state spectrometers are equipped with 1H/13C/15N cryoprobes and 1H/13C/31P cryoprobes both suitable for 1H and direct 13C detection with high sensitivity.

The widebore spectrometers are equipped with 4mm/7mm CP MAS for 1H/13C/15N and 1H/13C/31P and static flat coil probe for 1H/13C/15N/31P. In addition had the 400MHz spectrometer a solenoid coil 1H/31P.

The 600, 700, 800 and 900 MHz spectrometers can be operated with an UV

laser for photochemical experiments and a setup for photo-CIDNP and illumination using an Argon ion laser.

For the EPR and ENDOR applications, we can offer the following EPR-spectrometers: Bruker Elexsys E580 Spectrometer (Operating frequency 9-12GHz), EPR Sband homebuilt (2.7 and 3.7 GHz), ESP300 X-band, G 180GHz homebuilt.

Wet-lab facilities include RNA synthesis and a cell free expression system for the preparation of isotope enriched NMR samples.

As in the past, this infrastructure is made available for the use by researchers from within the European Union and associated states. Details about access, the application forms and the conditions for refunding of traveling and subsistence can be found on our website:

http://www.bmrz.unifrankfurt.de/index.htm

For any questions please contact us by phone, fax or e-mail.

We are looking forward to receiving your proposals and to welcome you in Frankfurt!

Sincerely Yours,

Harald Schwalbe (coordinator)
Christian Richter, Frank Löhr, Frank
Bernhard
tel:+49-69-79829737
fax:+49-69-79829515
schwalbe@nmr.uni-frankfurt.de
Center for Biomolecular Magnetic
Resonance (BMRZ)
Marie-Curie-Str. 11
60349 Frankfurt
Germany

New Developments in Contrast Agent Research.

Final Announcement and Call for Papers.

10th Special Topic Conference on Molecular Imaging, Magnetic Resonance and Intermodality Contrast Agent Research.

Radisson SAS Astorija Hotel; Vilnius, Lithuania; 14-16 June 2006.

For details and downloads check www.emrf.org

Deadline for original papers: 10 March 2006.

Early registration and hotel reservation are strongly recommended.

A few grants are still available.

www.emrf.org office@emrf.org

EMRF-Office@web.de

Flyer

Bitte beachten Sie für eine Reihe weiterer, interessanter Veranstaltungen die angehängten Flyer:

Fachgruppentagung 2006

EUROMAR 2006

Int'l. School High Field NMR

Committees / Addresses

Chair Persons

K. Albert (Tübingen), M. Baldus (Göttingen), E. Brunner (Regensburg), S. Berger (Leipzig), B. Blümich (Aachen), C. Ochsenfeld (Tübingen), E. T. K. Haupt (Hamburg), H. Kessler (München), C. Jäger (Berlin), G. Jeschke (Mainz), H. R. Kessler (München), H. A. Mayer (Tübingen), T. Prisner (Frankfurt), H. Schwalbe (Frankfurt), S. Stapf (Aachen), K. Ugurbil (Tübingen)

Local Organizing Committee

K. Albert (Tübingen) und V. Friebolin (Tübingen)

Scientific Program/ Local Organization

Prof. Dr. Klaus Albert Universität Tübingen Institut für Organische Chemie Auf der Morgenstelle 18 D-72074 Tübingen

Phone +49 (0) 7071-29 75335 Fax +49 (0) 7071-29 5875

E-Mail Klaus. Albert @uni-tuebingen.de

Volker Friebolin Universität Tübingen Institut für Organische Chemie Auf der Morgenstelle 18 D-72076 Tübingen

Phone +49 (0) 7071-29 76259 Fax +49 (0) 7071-29 5875

E-Mail Volker.Friebolin@uni-tuebingen.de

Registration

Electronically only via

http://fgmr.chemie.uni-hamburg.de/fg2006/

Guidelines for Abstracts

Abstracts

for all types of contributions should be written in English on <u>one</u> full page, size A4, with top, bottom, right and left margins of 3 cm (i.e. within a box of 15 cm wide by 23.7 cm high) and with a line distance 1.5 for the text. The heading should be in the format given below. References, denoted by numbers in brackets should be listed at the end using standard Chemical Abstracts Source Service Index (CASSI) terminology followed by YEAR, VOLUME, PAGE.

All abstracts should be sent before July 15, 2006 as an email attachment in RTF format (file name author.RTF) or as .doc-File to erhard.haupt@uni-hamburg.de

Further details, a template, a fill-out-form for text-only contributions and guidelines for the presentations (e.g. poster-size) will be available on the web-page.

TITLE

B.Z. Student ^a, L.A.Z. Fellow ^b, A.N. Author ^b

^a Affiliation 1, Address, City, Postal code, Country ^b Affiliation 2, Address, City, Postal code, Country

The abstract should include the paragraphs

- Introduction
- Methods
- Results
- Discussion

The abstract needs to contain detailed enough information on the used experimental techniques and results to support the obtained conclusion. This will allow an appropriate reviewing process to select the candidates for oral presentations.

Careless written abstract take the risk to be rejected.

[1] B. English and A. German (1998) J. Chem. Phys. <u>21</u>, 3-11

Corresponding Author: B.Z. Student E-mail: author@email.country



Gesellschaft Deutscher Chemiker

Fachgruppe Magnetische Resonanzspektroskopie

28th Discussion Meeting

In cooperation with the NMR discussion groups of Spain and Portugal

Invitation Call for Papers

Tübingen, Germany September 26th - 28th 2006

Invitation

The Division "Magnetic Resonance Spectroscopy" of the <u>German Chemical Society</u> (GDCh) invites you to participate in the 28th Discussion Meeting, held from September 26 to 28 2006, at Tübingen, Germany. Following our tradition, the conference will be organised as a joint meeting with colleagues from Spain and Portugal. The conference is intended to bring together scientists from chemistry and other related disciplines from Germany and other countries to discuss advances in fundamentals and applications of Magnetic Resonance Spectroscopy.

Over the last 30 years, Magnetic Resonance Spectroscopy (MRS) has become more and more essential in for e.g. structure elucidation and reaction monitoring in chemistry, biochemistry, biology, medicine, physics and material sciences. The developments of new and improved MRS techniques as well as the necessary hardware tools are still a stirring scientific field.

Today, NMR spectroscopy is involved in a wide variety of subjects in nature science like physics, chemistry, biology and medicine, including determination of molecular structures and dynamics of organic and inorganic molecules as well as biological macromolecules like biopolymers, such as proteins, nucleic acids and carbohydrates. MR is also widely used for medical tissue characterization by use of MR imaging and in vivo MR spectroscopy. Solid-state NMR spectroscopy has also made enormous progress in the last few years.

We have invited several foreign speakers and expect many conference attendees from countries throughout Europe especially from Portugal and Spain; for that reason, the conference language will be in English.

Speakers who have already agreed to lecture:

Ernest Giralt, Barcelona/Spain Carlos Geraldes, Coimbra/Portugal Fernando Ortiz, Almeria/Spain Joăo da Rocha, Aveiro/Portugal Teodor Parella, Bellaterra/Spain Jesus Barbero, Madrid/Spain Manuel Rico, Madrid//Spain Miquel Pons, Barcelona/Spain

Invitation

Topics

- Structure elucidation of bioactive compounds
- Solid-state NMR investigations and new materials
- Medical resonance imaging (MRI)
- Organic and Inorganic applications
- FPR
- NMR in Material Science
- Hyphenated techniques
- Theory and computer applications

Ernst Grants

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All manuscripts will be evaluated by members of the scientific committee and should be send in electronic form to

Prof. Dr. S. Berger stberger@rz.uni-leipzig.de

Ernst Grants will be awarded during the conference and involve a lecture by the winners.

Tutorial Sessions

There will be a pre-conference tutorial session (September 25th, 9.00 – 16.00) organized by Prof. Dr. K. Albert, Jens Rehbein and Paul Schuler. The tutorial session will introduce the participants into "Basics and Applications of the Hyphenation of Liquid Chromatography with NMR Spectroscopy".

The number of participants is restricted to 20, since this workshop consists of hands on measurements on four different NMR instruments; total fee for the tutorial session is \in 30. For further details see the extra link on the conference page.

The conference organizers expect that German participants are members of the GDCh and/or the Fachgruppe "Magnetische Resonanzspektroskopie".

Invitation

Call for Papers

Anyone wishing to offer a poster contribution should submit an abstract. Please note the deadlines.

The deadline is July 15th. 2006.

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Abstracts will only be considered from participants who have registered for the conference.

All abstracts should be supplied using the fill-out-form on our webpage

http://fgmr.chemie.uni-hamburg.de/fg2006/

follow: submissions

or (preferably) sent in the format described overleaf as an email-attachment in .rtf or .doc format with a relevant filename (like author.rtf) to:

erhard.haupt@uni-hamburg.de Subject: Abstract FG Conference Tübingen 2006

Location

University of Tübingen, Faculty of Chemistry.

Conference language

All contributions (lectures, talks, and posters) will be presented in English.

Accomodation

We recommend to use the informations of the tourist office given on the conference web page



16th - 21st July 2006 York, England www.euromar.org

Joint conference of British NMR-DG, Ampère and EENC

INTRODUCTION

DATE AND LOCATION

YORK

The Organising Committee of EUROMAR is pleased to extend an invitation to attend the first in a series of pan European conferences on NMR spectroscopy. This meeting replaces the British NMR Discussion Group's International Meetings that started in 1969 and finished in Cambridge in 2003. The new format will bring together participants from Ampère, EENC and UK NMR-DG and aims to cater for all parties interested in magnetic resonance.

THE EUROMAR meeting will take place at the University of York during the period Sunday 16th to Friday 21st July 2006, with participants gathering on the Sunday afternoon. There will be an inaugural reception and presentation on the Sunday evening at which Sir Peter Mansfield, Nobel Laureate, will be presenting some of his latest results. The scientific sessions start on Monday morning and the meeting ends at lunchtime on Friday. The Wednesday afternoon and evening have been

set aside for organised excursions and an evening meal in the area.

York is situated halfway between London and Edinburgh, approximately 300 km north of London. The walls of the old city are still complete and enclose an area containing York Minster, the Castle (Clifford's Tower), innumerable fine buildings from the medieval period and from the eighteenth century. York Minster is one of the great masterpieces of Gothic architecture. Attractive museums (The Castle Museum, Yorkshire Museum, Yorvik Centre, Fairfax House) allow the visitor to explore local history, including outstanding archaeological finds in Roman, Anglian and Viking times. The National Railway Museum is extremely popular and will be the venue for the conference dinner. York is within easy

TRAVEL TO YORK

range of other sites of interest including Castle Howard and Fountains Abbey. The coast, the North York Moors and the Yorkshire Dales may be reached in 1-2 hour's drive.

All the lectures and the poster sessions take place at the University on the main campus. This is located in Heslington and forms a 200-acre landscaped park, well-known for its lake and wildfowl. The colleges and academic buildings are on a level site within walking distance of each other. Proximity to the historic city of York makes the University a popular choice and provides a pleasant working and residential environment. See www.york.ac.uk for more information about the venue

Air: <u>Leeds Bradford International Airport</u> is 40 Km and <u>Manchester Airport</u> is 100 Km from York. <u>Heathrow</u>, <u>Gatwick</u>, <u>Luton</u> and <u>Stansted</u> International Airports are located around London approximately 300 Km from York. Rail links will get you from any of the above airports to York.

Rail: York is on the main East Coast Line from London King's Cross to Edinburgh. Fast trains make stops here for both north and south directions, at frequent intervals. There is also a direct service across the Pennines between York, Leeds and Manchester Airports.

Road: There are also bus connections (MatroConnect 757) from Leeds Bradford Airport to Leeds Station. The University is two miles from the railway station and you will need to get a bus or taxi onto campus. A journey by taxi from the railway station to the University will take approximately 15 minutes. There is a taxi rank just outside the station. Number 4 buses run from the station to campus every 8 minutes between 09.00 and 18.00. If travelling by car, visitors approaching York from the A64 should turn off at one of the exits marked **University** (A19 or A1079), in order to avoid the City centre. Subsequent turns are also signposted. Visitors coming from other directions should either:

- take the Selby road (A19) to Fulford and turn along Heslington Lane or Broadway towards Heslington
- or take the Hull Road and turn right at the first traffic lights into Green Dykes Lane which leads to University Road

Parking permits are required for the University site at a cost of £3 per day or £10 for the week. Please indicate your requirements on the application form.

More information and registration will be available on our Website **www.euromar.org** which has links to the registration site **www.confsec.co.uk**.

COMMITTEES

EUROMAR Board of Trustees

EUROMAR 2006 Programme Committee

York Local Organizing Committee

Conference Secretary

Chairman

Geoffrey Bodenhausen (ENS, Paris, France),

Secretary

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Treasurer

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Bernhard Blümich (RWTH, Aachen, Germany)

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Robert Griffin (MIT, Cambridge, USA) **Olga Lapina** (BIC, Novosibirsk, Russia)

Thomas Prisner (University of Frankfurt, Germany)

Gerhard Wagner (Harvard, Boston, USA)

Simon Duckett (University of York, UK) *ex-officio* **Duncan Farrant** (GSK, Stevenage, UK) *ex-officio*

Geoffrey Bodenhausen Frontiers

Kevin Brindle Imaging

Janez Dolinsek Solid State Physics

Simon Duckett Catalysis

Duncan FarrantPharmaceutical Applications**Daniella Goldfarb**Paramagnetic Systems

Malcolm Levitt High Sensitivity Magnetic Resonance

Beat Meier Bio-Solids

David NeuhausBio-MacromoleculesJeremy TitmanMethods in Solids

Prof Simon Duckett

Dr Tom Halstead

Prof Gary Green

Dr David Williamson

Ms Heather Fish

Dr Jennifer Potts

Dr. Adrian Chalton

Elaine Wellingham

For further information:

Telphone & Fax: +44 (0)1275 853311

Email: esw@confsec.co.uk

Website: www.confsec.co.uk

POSTERS AND ORAL PRESENTATIONS

ABSTRACTS

INSTRUCTIONS FOR ABSTRACT SUBMISSION

Posters will feature as an integral part of the meeting. All participants are invited to submit abstracts of scientific communications that will be peer reviewed for their possible acceptance. The Program Committee reserves the right to select and finalise the entire program. Please note that the abstract will not be accepted unless the presenting author is registered for the conference. Some selected abstracts will be invited to be presented as oral communications. Your preference for oral and poster presentation should be indicated on the tick boxes in the on-line abstract submission pages. Persons wishing to offer an oral presentation or poster should produce an abstract according to the format below, and submit it on-line by Monday April 17th.2006 using the website www.euromar.org

After, you have registered and submitted your abstract(s), confirmation and an acceptance e-mail of its status, will be sent towards the end of April 2006. The abstracts of the accepted communications will be in an Abstracts Book distributed to all delegates at the start of the conference.

Abstracts should be in English and can only be submitted electronically through the on-line system, which is available at www.euromar.org/abstracts. Note that abstracts can not be submitted by fax or post. Authors will be guided automatically through the system when submitting their abstract on-line. Should you experience any difficulties, please contact the conference secretariat by e-mail (esw@confsec.co.uk).

The abstracts will be reproduced directly from the PDF file that is submitted. The type written area will be contained within a rectangle of size 150 x 210 mm. The heading should be presented as below, including the full line separating text and heading. References, denoted by superscript numbers in the text, should be listed at the end using standard Chemical Abstracts Source Index (CASSI) terminology followed by Year, Volume and Pages.

USE OF PARAHYDROGEN TO STUDY CATALYTIC REACTIONS BY NMR SPECTROSCOPY

S B Duckett, D Blazina, S. Anwar, H Carteret, J Jones.

Department of Chemistry, University of York, York, YO10 5DD, UK. (sbd3@york.ac.uk)

By using parahydrogen that is preformed at 20 K, it is possible to produce a pure two-spin state for the two hydride ${}^{1}H$ nuclei in Ru(H)₂(CO)₂(dpae), where dpae indicates.......

1. Anwar, M. S., Blazina, D., Carteret, H., Duckett, S. B. and Jones, J. A. Chem. Phys. Lett. 2004, 400, 94-97

SOCIAL PROGRAMME

EXCURSION A Tour of York

EXCURSION BWalk in the North Yorkshire Moors

EXCURSION CVisit to Fountains Abbey

EXCURSION DVisit to Pickering Castle and Whitby

A full programme of evening social events is planned, including the inaugural reception on the Sunday evening for all participants and their accompanying guests. The Conference Dinner will be held in the York Rail Museum on the Thursday evening.

The Scientific sessions on Wednesday will end at lunchtime, so as to allow persons to participate in organised excursions on Wednesday afternoon and evening. The charges include all entrance fees, and a pub evening meal.

There are six excursions to choose from. The York tour has no participant limits, but the others will be assigned on a first-come-first-served basis.

The group will start with a guided tour of York Minster and then visit the Jorvik Viking Centre and then the Merchant Adventurer's Hall. The Jorvik Centre brings archaeology to life with an accurate reconstruction of a Viking village on the banks of the river, complete with wax figures, sounds and smells. The tour finishes with a visit to the museum of finds, from the dig where the horrific injuries inflicted with mediaeval weapons can be appreciated.

The Merchant Adventurers Hall is a magnificent building constructed of oak beams in the 1350s for the Merchant Adventurers, the guild of export and import tradesman. It is one of the finest mediaeval timber buildings in Europe.

The walk of about 10 km will start in Old Byland and follow the valley past Rievaulx Abbey, one of the magnificent ruined mediaeval abbeys, to Helmsley.

Participants should be equipped with boots or shoes suitable for rough and wet ground, and waterproofs are also advisable.

Fountains Abbey and Studley Royal encompasses the spectacular ruins of the 12th century Cistercian Abbey, a mansion of the early 17th century and the 18th century Water garden with its lakes, avenues neo-classical temples and cascades all set in a beautiful valley on the edge of the Yorkshire Dales.

Pickering Castle is a fine mediaeval castle built mostly between 1180 and 1330. It includes a curtain wall and a circular keep built on an artificial hill (or motte). Whitby is a small fishing port with a ruined Abbey on top of the cliffs

EXCURSION E
Visit to Royal Armouries Museum Leeds

EXCURSION F Visit to Castle Howard above the town. This is where Captain Cook learned his trade.

The Captain Cook Memorial Museum houses manuscripts, water colours and drawings. The streets of Whitby include numerous old buildings and attractive small shops selling local specialities including jewellery made of jet, an unusual black stone.

The Royal Armouries Museum was opened in 1996 as the new home for the national collection of arms and armour. There are five themed galleries covering War, Tournament, Self-Defence, Hunting and the arms and armour of the Orient that offer something to captivate the visitor. There is an exciting combination of spectacular displays, dramatic interpretations, live action events, interactive technology and thrilling exhibitions.

Castle Howard is the vast and opulent Baroque country house built to a very original design by Vanbrugh starting in 1701. It

is the largest house in Yorkshire and has been the home of the Howard family, since the 17th century. The house has many superb rooms, filled with fine furniture, statues and beautiful china. You will marvel at the remarkable collection of paintings by Rubens, Tintoretto, Van Dyke, Canaletto and Reynolds; the most famous is the portrait of Henry VIII. There is also a 1,000-acre park to explore with lovely lakes, fountains and a rose garden.

A guided tour of York has been arranged for **Monday 17**th **July.** This will include a visit to York Minster, lunch at St Williams College, a tour of the Jorvik Viking Centre and Clifford's Tower.

On **Tuesday the 18th July**, a coach tour of the Yorkshire Dales is planned. This will include stops at Hawes, home to Wensleydale Cheese and Grassington, a small village centred around a cobbled square with a selection of family-owned shops offering quality food, clothing and gifts, alongside small cosy cafes and restaurants.

Accompanying Persons are encouraged to enrol with their partners on one of Wednesdays Excursions. Thursday is left free.

The Conference Secretariat reserves the right to cancel a tour if the minimum number of 12 participants is not met.

STUDENT BURSARIES

PAYMENT

Cancellation Policy

The fees for attendance at the Conference for delegates registering and paying before April 17th 2006 will be £220. This includes the conference dinner to be held at the National Railway Museum on the Thursday evening. Only Single occupancy *en suite* rooms and standard rooms are available during the meeting. The accommodation package includes an evening meal for Sunday 16th July, bed, breakfast, lunch and evening meal for the Monday, Tuesday and Thursday. The Wednesday afternoon Social Event (£35) will also include the evening meal. For those not going on excursions on Wednesday, dinner can be purchased separately. The full board package for the duration of the meeting (5 nights) will be

A limited number of bursaries for students will be available from February 2006. Students wishing to apply should send written proof of their status from their institution at the time of registration, by fax or mail to the conference secretary. A £200 contribution towards the registration and accommodation will be made. A deadline of the 31st March 2006 has been set for all students wishing to apply for bursaries.

Payment for registration and accommodation may be made by one of the following ways. Please indicate your method of payment on the registration form and either submit this online or return by post or fax to Elaine Wellingham.

- 1) By credit card (Visa, Mastercard, or American Express)
- 2) By Bank Transfer

Bank: National Westminster
Account name: EUROMAR 2006
Account no: 60033134
Sort Code: 60-14-49

IBAN: GB52 NWBK 6014 4960 0331 34

BIC: NWBK GB 2L

The registration fees and accommodation fees less a processing fee of £20 will be refunded, provided a written cancellation is received by the Conference Secretary before 17th April 2006. For cancellations between 18th April and 9th June 2006 a full refund less a fee of £85 will be made, provided a written cancellation is received by the Conference Secretary before 9th June 2006. Please note that there will be **no refund** for cancellations received **after 9th June 2006**.

The 9th June 2006 is also the deadline for cancellation for Accompanying Persons. No refund will be provided after this date.

FURTHER INFORMATION

Is available on the website:

www.euromar.org

Any organisational/administrative queries may be referred to

Elaine Wellingham Conference Secretariat Field End House Bude Close Nailsea, Bristol, BS48 2FQ

Tel and Fax: +44 (0) 1275 853311

Email: esw@confsec.co.uk

Whilst scientific queries should be referred to

Dr. R.Duncan Farrant Chairman NMRDG (2003 - 2006) GlaxoSmithKline Medicines Research Centre Gunnels Wood Road Stevenage, SG1 2NY, UK

Tel: +44 (0) 1438 768026 Fax: +44 (0) 1438 763552

e-mail: Duncan.Farrant@gsk.com

Local queries should be referred to

Prof. Simon Duckett

Department of Chemistry University of York Heslington YORK, YO10 5DD

Tel: 44 (0) 1904 432564 Fax: 44 (0) 1904 432516 Email: sbd3@york.ac.uk

Scientific Programme

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	Sunday 16 July			
	From 14.00	Registration & Poster mounting		
	18.30	8.30 Mixer & Dinner		
	20.00	Welcome: Central Hall EUROMAR Medal Lecture Sir Peter Mansfield		
	21.00	Hospitality suites and Poster mounting		

	Monday	17 July
	Plenary Lectures: Central Hall	
09.00	Imaging: Klaes Golman	
	Solid State Phys: Giorgios Papavassiliou	
10.30		Coffee Break
	Session 1A: Central Hall	Session 1B: Exhibition Centre
	Imaging: Silvio Aime	Solid State Physics: Claude Berthier
11.00	Oral Presentation 1	Oral Presentation 4
	Oral Presentation 2	Oral Presentation 5
	Oral Presentation 3	Oral Presentation 6
12.45	Lunch	
	Session 2A: Central Hall	Session 2B: Exhibition Centre
	Imaging: Alan Koretsky	Paramagnetic Systems: Klaus Moebius
14.15	Oral Presentation 7	Oral Presentation 10
	Oral Presentation 8	Oral Presentation 11
	Oral Presentation 9	Oral Presentation 12
16.00		Tea Break
	Session 3A: Central Hall	Session 3B: Exhibition Centre
	High Sensitivity MR: Joerg Wrachtrup	Solid State Physics: Ferdinando Borsa
16.30	Oral Presentation 13	Oral Presentation 16
	Oral Presentation 14	Oral Presentation 17
	Oral Presentation 15	Oral Presentation 18
18:00	Vendor pre	sentations: Central Hall
19.00	Dinner	

Tuesday 18 July

	Plenary Lectures: Central Hall		
09.00	Paramagnetic Sys: Jan Schmidt		
	Methods in Solids: Lyndon Emsley		
10.30	Coffee Break		
	Session 4A: Central Hall	Session 4B: Exhibition Centre	
	Methods in Solids: Stephen Wimperis	Paramagnetic Systems: Thomas Prisner	
11.00	Oral Presentation 19	Oral Presentation 22	
	Oral Presentation 20	Oral Presentation 23	
	Oral Presentation 21	Oral Presentation 24	
12.45	Lui	nch	
	Session 5A: Central Hall	Session 5B: Exhibition Centre	
	BioSolids: Marc Baldus	Catalysis: John Brown	
14.15	Oral Presentation 25	Oral Presentation 28	
	Oral Presentation 26	Oral Presentation 29	
	Oral Presentation 27	Oral Presentation 30	
16.00	Tea I	Break	
16.30	Poster Session 1		
18:00	Vendor presentations: Central Hall		
19.00	Dinner		
20:30	Prize Session: Ampere, ER Andrew and Russell Varian prizes.		
22:00	Hospitali	ity Suites	
	Wednesday 19	July	
	Plenary Lectures: Central Hall		
09.00	Catalysis: Kees Elsevier		
	High Sensitivity MR: Bob Griffin		
10.30	Coffee	Break	
	Session 6A: Central Hall	Session 6B: Exhibition Centre	
	Catalysis: Michael Anderson	High Sensitivity MR: HongWen Jiang	
11.00	Oral Presentation 31	Oral Presentation 34	
	Oral Presentation 32	Oral Presentation 35	
	Oral Presentation 33	Oral Presentation 36	
12.45 Lunch		nch	
13.30 – 21.00	Excursions		
21:00	Hospital	ity suites	
	Thursday 20	July	
Plenary Lectures: Central Hall			

	Thursday 20 July
09.00	Plenary Lectures: Central Hall BioSolids: Robert Tycko Pharmaceutical Applications: Lucio Frydman
10.30	Coffee Break

11.00	Session 7A: Central Hall Pharmaceutical Applications Tony Watts Oral Presentation 37 Oral Presentation 38 Oral Presentation 39	Session 7B: Exhibn Biosolids: Kurt Zilm Oral Presentation 40 Oral Presentation 41 Oral Presentation 42
12.45	Lur	nch
14.15	Session 8A: Central Hall Pharmaceutical Applications Jacques Courtieu Oral Presentation 43 Oral Presentation 44 Oral Presentation 45	Session 8B: Exhibn Bio-macromolecules: Gerhard Wagner Oral Presentation 46 Oral Presentation 47 Oral Presentation 48
16.00	Tea B	Break
16.30	Poster S	ession 2
17:00	Vendor presentati	ons: Central Hall
18:00	Vendor presentati	ons: Central Hall
19:00	Remove posters	
20.00	Conference Dinner	– Railway Museum

Friday 21 July		
	Session 9A: Central Hall	Session 9B: Exhibn
	Frontiers: Yishay Manassen	Bio-macromolecules: Frederic Allain
09.00	Oral Presentation 49	Oral Presentation 52
	Oral Presentation 50	Oral Presentation 53
	Oral Presentation 51	Oral Presentation 54
10.45	Coffee Break	
	Plenary Lectures: Central Hall	
11.15	Frontiers: Dan Rugar	
	Bio-macromolecules: Peter Wright	
12.45	Close of conference	
13.00	Lunch	
14.00	Departure	

Deadlines:

31st March 2006

17th April 2006

9th June 2006

SPONSORS

Deadline for Student Bursary applications

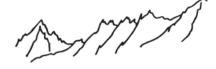
Deadline for low rate registration fee

Deadline for cancellation of registration. For delegates and accompanying persons. All cancellations must be in writing to the Conference Secretariat.

Conference at University of York.

The Conference organisers are indebted to:
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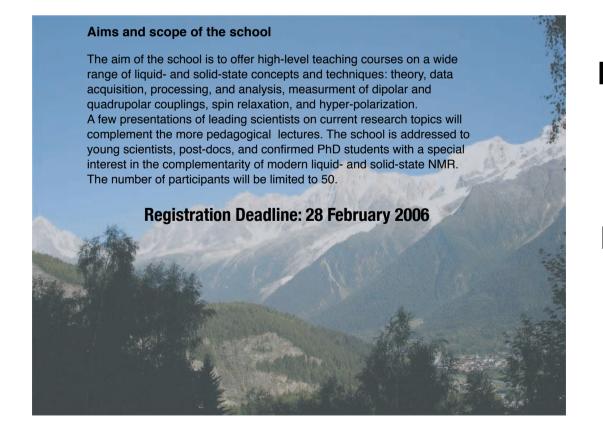


Les Houches, Physics Centre

International school on High field NMR spectroscopy for solids and liquids

Les Houches, France, 14-19 May 2006

Announcement and Registration Form



General Information

Lectures

- M. Akke (Sweden), A. Bax (USA), P. Berthault (France), M. Blackledge (France),
- G. Bodenhausen (France), M.-A. Delsuc (France), L. Frydman (Israel),
- P. Grandinetti (USA), P. Hodgkinson (UK), J. Keeler (UK),
- W. Köckenberger (UK), D. Marion (France), B. Meier (Switzerland),
- N. Soffe (UK), H. Spiess (Germany), P. Vedrine (France).

Venue and accommodation

The school starts on Sunday 14th with dinner, and ends on Friday 19th after lunch. The school will take place at the Les Houches Physics Centre in the French Alps (close to Chamonix) facing the Mont-Blanc. On the edge of woods and meadows, set apart from the village itself, it offers many opportunities for activities such as hiking and mountain-climbing. During the school, the afternoons will remain free for outdoor activities and scientific discussion. Les Houches can be reached by car, train, or airplane to Geneva (at 1 hour driving distance). More practical information can be found at http://www.ujf-grenoble.fr/HOUCHES.

Registration

Fees: 600€

The fees include participation in all school activities, lodging in a single room, and all meals from Sunday evening to Friday afternoon. A registration form is attached to this circular. A limited number of grants are available for students and post-docs. Participants are encouraged to present a poster at the school.

Contact Information

Organising Committee

- M. Blackledge (Grenoble)
- J. Boisbouvier (Grenoble)
- B. Brutscher (Grenoble)
- L. Emsley (Lyon)
- S. Hediger (Lyon)
- D. Marion (Grenoble)
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