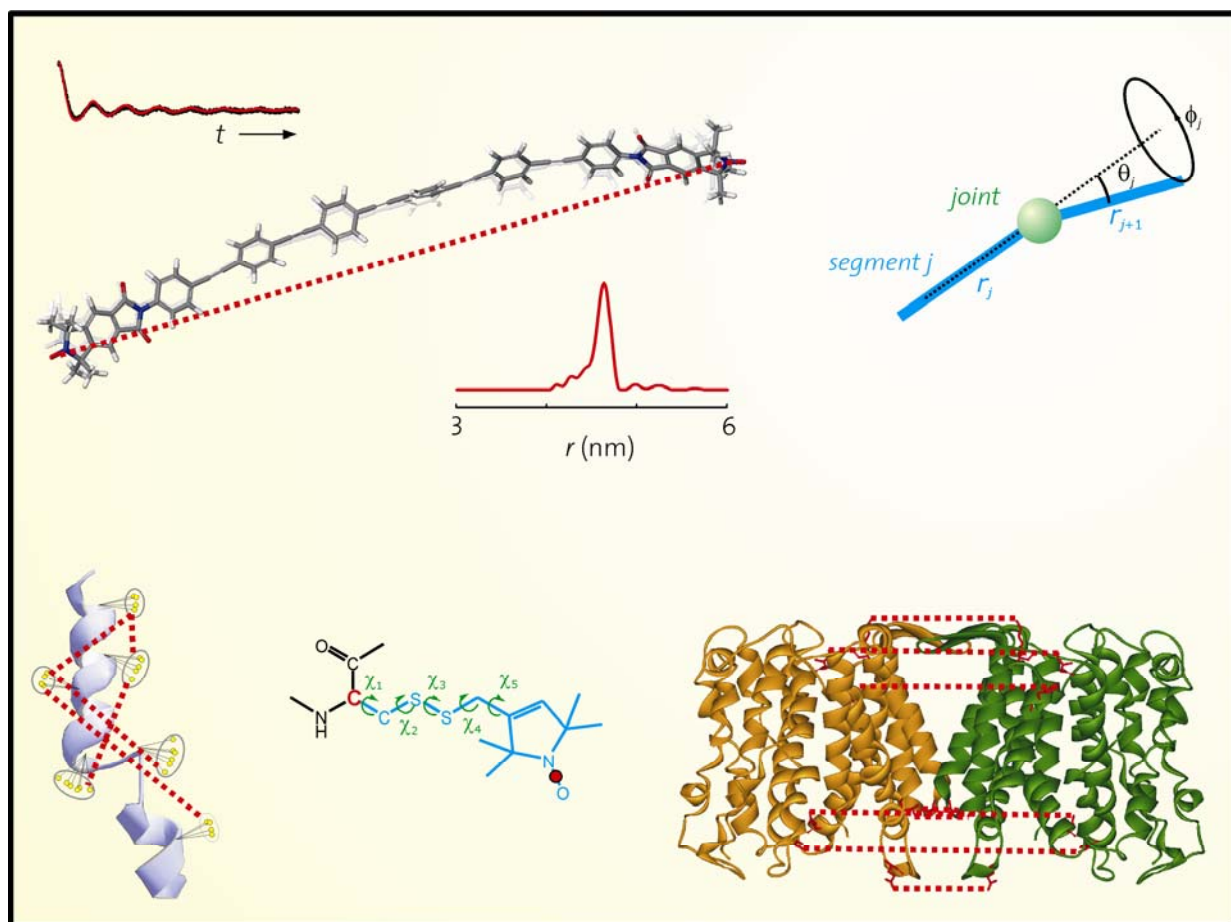


The 42<sup>nd</sup> Annual International Meeting  
of the  
Electron Spin Resonance Spectroscopy Group  
of the  
Royal Society of Chemistry



The University of East Anglia at the Ramada Hotel, Norwich  
19<sup>th</sup> – 23<sup>rd</sup> April 2009

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# Conference Programme

**All Conference Lectures will be held in the City Suite at the Ramada Hotel.  
The poster session will take place at the City Suite Reception Area/Lounge.**

| SUNDAY 19 <sup>th</sup> APRIL |                             |                         |
|-------------------------------|-----------------------------|-------------------------|
| 09:00 – 17:00                 | COST P15<br>Training School | Club Room, Ramada Hotel |

| SUNDAY 19 <sup>th</sup> APRIL |                    |                                      |
|-------------------------------|--------------------|--------------------------------------|
| ----- Arrival -----           |                    |                                      |
| 14:00                         | Check-in opens     | Foyer, Ramada Hotel                  |
| 16:30 - 18:00                 | Registration opens | 2 <sup>nd</sup> Avenue, Ramada Hotel |
| 18:00                         | Bar opens          | Presidential Suite Bar               |
| 18:30                         | Dinner             | Presidential Suite                   |
| 20:00                         | RSC Wine Reception | City Suite Reception Area            |

| MONDAY 20 <sup>th</sup> APRIL                  |                    |   |
|--|--------------------|---|
| 07:30 – 08:50                                  | Breakfast          | Arts Restaurant   |
| 08:00 – 09:00                                  | Registration open  |   |
| <b>Session Chair: Professor David Collison</b> |                    |   |
| 08:55 – 09:00                                  | City Suite         | Conference opening and welcome note   |
| 09:00 – 09:40                                  | Wayne L. Hubbell   | <b>Keynote Lecture:</b> Functional protein dynamics from site-directed spin labelling   |
| 09:45 – 10:00                                  | Sergei Dzuba       | PELDOR studies of conformations of single- and double-stranded DNA with non-nucleotide inserts  |
| 10:05 – 10:20                                  | Jeffrey Harmer     | Orientation selective DEER measurements in systems containing paramagnetic iron-sulfur clusters   |
| 10:30 – 11:00                                  | Tea & Coffee       | City Suite Reception Area   |
| <b>Session Chair: Dr Fraser MacMillan</b>      |                    |   |
| 11:00 – 11:25                                  | R. David Britt     | <b>Invited Lecture:</b> Multifrequency Pulsed EPR targeting metal cluster - ligand interactions   |
| 11:30 – 11:45                                  | Bruno Guigliarelli | Engineering dioxygen sensitivity of hydrogenases: Mechanistic studies combining EPR, photochemistry and electrochemistry                                  |
| 11:50 – 12:05                                  | Alistair Fielding  | Multifrequency Electron Paramagnetic Study of the Radical Intermediates Generated by PpoA, a Novel CYP450 Fusion Protein from <i>Aspergillus nidulans</i> |
| 12:10 – 12:25                                  | Stefan Stoll       | Substrate radical intermediates in cyanobacterial bilin reductases  |
| 12:30 – 13:45                                  | Lunch              | Arts Restaurant   |

| <b>Session Chair: Professor Andrew J. Thomson, FRS, OBE</b> |                                 |   |
|---|---------------------------------|---|
| 14:00 – 14:15   | Angelika Boeer                  | <b>JEOL Student Prize Talk:</b> Anisotropy in Molecular Magnetism; Magnetic Exchange Coupling of Octahedral Cobalt(II) Ions   |
| 14:20 – 14:35   | Susanna Pudollek                | <b>JEOL Student Prize Talk:</b> EPR and <sup>55</sup> Mn-ENDOR Spectroscopy of the S <sub>2</sub> -state Multiline Signal of Photosystem II                               |
| 14:40 – 14:55   | Bela Bode                       | <b>JEOL Student Prize Talk:</b> Exotica in pulsed dipolar spectroscopy; cobalt(II)-nitroxide distances and spatial distribution of nitroxides in membranes and detergents |
| 15:00 – 16:20   | Tea & Coffee / "odd" Posters    | <i>City Suite</i> Reception Area  |
| <b>Session Chair: Professor Martin Kaupp</b>                |                                 |   |
| 16:20 – 16:45   | David Keeble                    | <b>Invited Lecture:</b> Doping of Perovskite Oxide Functional Materials: Local structure determination using Electron Magnetic Resonance                                  |
| 16:50 – 17:05   | Sepideh Zamani                  | EPR analysis of Vanadium-doped mesoporous silica and titania catalysts  |
| 17:10 – 17:25   | Stephen Sproules                | An "EQR" spectrum: Electronic structure of rhenium tris(dithiolene) electron transfer series  |
| 17:30 – 17:45   | Chandrima Pal                   | CW and Pulse ESR study on partially zinc (II) exchanged and partially dehydrated zeolite  |
| 18:00   | Bar opens                       | <i>Presidential Suite</i> Bar   |
| 18:30   | Dinner                          | <i>Presidential Suite</i>   |
| 20:00   | JEOL Reception / Poster Viewing | <i>City Suite</i> Reception Area  |

| <b>TUESDAY 21<sup>st</sup> APRIL</b>            |                    |   |
|---|--------------------|---|
| 07:30 – 08:50                                   | Breakfast          | <i>Arts Restaurant</i>  |
| <b>Session Chair: Professor R. David Britt</b>  |                    |   |
| 09:00 – 09:40                                   | Fraser MacMillan   | <b>Keynote Lecture:</b> Correlating the structure & function of proteins using EPR  |
| 09:45 – 10:00                                   | Janet Lovett       | DEER; Probing nanosized self-assembled structures   |
| 10:05 – 10:20                                   | Enrica Bordignon   | Reciprocal transmembrane signaling in an ABC transporter  |
| 10:30 – 11:00                                   | Tea & Coffee       | <i>City Suite</i> Reception Area  |
| <b>Session Chair: Professor Richard Cammack</b> |                    |   |
| 11:00 – 11:25                                   | Inés García Rubio  | <b>Invited Lecture:</b> Tuning redox activity by replacing the proximal heme ligand in cytochrome P450cam with selenocysteine         |
| 11:30 – 11:45                                   | Christian Teutloff | The electronic structure and protein interactions of Y <sub>D</sub> in PS-II investigated by high-field ENDOR-spectroscopy            |
| 11:50 – 12:05                                   | Nikolay Isaev      | Fast Stochastic Librations and Slow Rotations of Spin Labeled Stearic Acids in a Model Phospholipid Bilayer at Cryogenic Temperatures |
| 12:10 – 12:25                                   | David Norman       | Using PELDOR to define and refine the domain orientation of modular proteins  |

|  |                                   |   |
|--|-----------------------------------|---|
| 12:30 – 13:45                                  | Lunch                             | Arts Restaurant                                       |
| 13:45 – 17.45                                  | Free time                         | Bus transfer into Norwich & Tour of Norwich Cathedral |
| 18:00  | Bar opens                         | Presidential Suite Bar                                |
| 18:30  | Dinner                            | Presidential Suite                                    |
| <b>Session Chair: Professor David Collison</b> |                                   |   |
| 20:00  | Gunnar Jeschke                    | <b>Bruker Lecture:</b> Measuring the Nanoworld        |
| 21:00  | Bruker Reception / Poster Viewing | City Suite Reception Area                             |

|  |                               |   |
|--|-------------------------------|---|
| <b>WEDNESDAY 22<sup>nd</sup> APRIL</b>         |                               |   |
| 07:30 – 08:50                                  | Breakfast                     | Arts Restaurant   |
| <b>Session Chair: Dr. Christopher Kay</b>      |                               |   |
| 09:00 – 09:40                                  | Martin Kaupp                  | <b>Keynote Lecture:</b> Quantum Chemical Calculations of EPR Parameters as a Tool to Study Metalloenzyme Sites<br><b>Sponsored by the EPSRC National Service for EPR Spectroscopy</b> |
| 09:45 – 10:00                                  | Ilya Kuprov                   | State space reduction and symmetry factorization in EPR and Spin Chemistry simulations  |
| 10:05 – 10:20                                  | Dimitri Svistunenko           | Revisiting the M <sup>c</sup> Connell relationship: why C <sub>1</sub> ?  |
| 10:30 – 11:00                                  | Tea & Coffee                  | City Suite Reception Area   |
| <b>Session Chair: Professor Gunnar Jeschke</b> |                               |   |
| 11:00 – 11:25                                  | Marina Bennati                | <b>Invited Lecture:</b> <sup>1</sup> H and <sup>13</sup> C Dynamic nuclear polarisation with a two-field (0.35/14T)shuttle DNP spectrometer   |
| 11:30 – 11:45                                  | Graham Smith                  | Very high bandwidth, orientation selective, DEER spectroscopy at 94GHz  |
| 11:50 – 12:05                                  | Henk Vrielinck                | ENDOR in field-frequency space: orientation, species and quantum state selection  |
| 12:10 – 12:25                                  | Hideo Utsumi                  | Development of high field OMRI scanner for imaging in vivo redox status in mouse  |
| 12:30 – 13:45                                  | Lunch                         | Arts Restaurant   |
| <b>Session Chair: Dr. Victor Chechik</b>       |                               |   |
| 14:00 – 14:15                                  | Philipp Neumann               | Single spins in diamond: quantum computing and magnetometry   |
| 14:20 – 14:35                                  | Mark Newton                   | Quantum tunnelling of hydrogen in the nitrogen; vacancy; hydrogen complex in diamond  |
| 14:40 – 14:55                                  | Mohamed Morsy                 | An EPR Structural and Conformational Evidences of Liquid Crystalline and Carbon Nanotube Systems using Different Radical Probes   |
| 15:00 – 15:15                                  | Christopher Smith             | ESR study on Hydrogen Absorption property of Ball-milled Graphite   |
| 15:20 – 16:20                                  | Tea & Coffee / "even" Posters | City Suite Reception Area   |

| <b>Session Chair: Dr. Mark Newton</b> |                   |  |
|---------------------------------------|-------------------|--|
| 16:20 – 16:35                         | Christopher Wedge | Time-Resolved Low-Field EPR of a Carotenoid-Porphyrin-Fullerene Triad  |
| 16:40 – 16:55                         | Iain McKenzie     | Probing Soft Matter with Avoided Level Crossing Muon Spin Resonance: A Complimentary Technique to EPR  |
| 17:00 – 17:15                         | Katharina Pirker  | Reactions of Cu(II) with teas and polyphenols  |
| 17:20 – 17:35                         | Rachel Haywood    | Ascorbate (vitamin C) accelerates hydrogen-peroxide-induced melanoma cell death via modulation of oxidative stress: vitamin C a DNA damage switch? |
| 17:45                                 | RSC ESR Group     | AGM of the RSC ESR Group (all welcome to attend)   |
| 17:45 – 19:00                         | Poster Viewing    | <i>City Suite</i> Reception Area   |
| 19:30                                 | Pre-dinner drinks | <i>City Suite</i> Reception Area   |
| 20:00                                 | Banquet           | <i>City Suite</i>  |

| <b>THURSDAY 23<sup>rd</sup> APRIL</b>  |                 |  |
|--|-----------------|--|
| 07:30 – 08:50  | Breakfast       | <i>Arts Restaurant</i>   |
| <b>Check-out of Hotel rooms by 13.00</b> (luggage storage will be available) |                 |  |
| <b>Session Chair: Dr. Rachel Haywood</b>                                     |                 |  |
| 09:00 – 09:40  | Richard Cammack | <b>Keynote Lecture:</b> Biochemical targets for advanced EPR weaponry  |
| 09:45 – 10:00  | Georg Gescheidt | Investigations on Radical Polymerisation by CIDNP; New Insights  |
| 10:05 – 10:20  | Kiminori Maeda  | Spin dynamics of the model system of a chemical compass using pulsed EPR and transient absorption spectroscopies |
| 10:30 – 11:00  | Tea & Coffee    | <i>City Suite</i> Reception Area   |
| <b>Session Chair: Dr. Damien Murphy</b>                                      |                 |  |
| 11:00 – 11:15  | Sergey Semenov  | Host-guest complexes of pH-sensitive nitroxides for EPR spectroscopy and imaging                                 |
| 11:20 – 11:35  | Johann Klare    | Structure and function of the tRNA modifying MnmE/GidA complex studied with DEER                                 |
| 11:40 – 11:55  | Olav Schiemann  | PELDOR on the 320kD Capsular Export Channel Wza  |
| 12:00 – 12:15  | Victor Chechik  | Au nanoparticle catalysed oxidation reactions: a spin trapping study   |
| 12:30 – 13:45  | Lunch           | <i>Arts Restaurant</i>   |
| ----- <b>Departure</b> -----   |                 |  |

### Additional Meetings

|           |               |  |
|-----------|---------------|--|
| Sunday    | 20.45 – 21.30 | Committee Meeting of the ESR Group<br>( <i>Statesman Room</i> )  |
| Tuesday   | 14.00 – 16.00 | Oxford SAC Meeting<br>( <i>Statesman Room</i> )                  |
| Tuesday   | 16.00 – 18.00 | Manchester MAP Meeting<br>( <i>Statesman Room</i> )              |
| Wednesday | 17.45 – 18.30 | Annual General Meeting of the ESR Group<br>( <i>City Suite</i> ) |

## **General Information**

All activities will take place at the Ramada Hotel, Norwich (see Transport section).

### ***Registration***

The hotel check-in time is from 2pm onwards (Hotel reception is open 24 hours). Registration will take place on the Sunday evening from 16:30 till 18:00 and on Monday morning from 08:00 till 09:00 at the Registration Desk which can be found on 2<sup>nd</sup> Avenue just across from the main Hotel reception (see signposts).

### ***Lectures***

All lectures will be held in the *City Suite*.

### ***Poster Sessions***

Posters will be located in the *City Suite* Reception Area (at the rear of the *City Suite*) and should be displayed for the duration of the conference. There will be two poster sessions held on the Monday ("ODD") and Wednesday ("EVEN") afternoons. Please hang your posters on Sunday evening and remove them on Thursday morning.

### ***Tea and Coffee Breaks***

Tea and coffee breaks will be served in the *City Suite* Reception Area. Iced water and tea/coffee will be available at all times during the sessions.

### ***Lunches and Dinners***

Lunches will be at 12:30 until 13:45 in the *Arts* restaurant and evening meals (apart from the banquet) will be at 18:30 each day in the *Presidential Suite* (basement). The *Presidential Suite* bar will open at 18:00 each day. The banquet will be held in the *City Suite* at 20:00 on the Wednesday.

### ***Accompanying persons***

We do not offer a specific programme for accompanying persons, but there are many sites of interest to visit. For information, please ask any of the local organisers or see information displayed at the Registration desk.

### ***Information for speakers***

Please allow 5 minutes for discussion at the end of all lectures. Excluding discussion time, keynote lectures will be 40 minutes, invited lectures 25 minutes, JEOL Student Prize talks and contributed lectures 15 minutes.

Speakers are requested to upload their presentation a day prior to their talk at the latest. Please hand in your file (pdf or ppt) to the Registration desk or to a local organiser (red button on badge). Make sure you enable the

“Embed all fonts” option when saving your presentation to avoid font and figure corruption. Please would all speakers ensure they keep strictly to the time schedule for their talks. Chairs are also advised to adhere to their session time schedule.

## ***Suggestions for Tuesday Afternoon***

### **Tour of Norwich Norman Cathedral**

The magnificent Cathedral dominates the city skyline. Situated in the heart of the city, Norwich Cathedral has attracted many pilgrims and visitors for over 900 years. Separated from the busy streets by flint walls and entrance gates, it is a place of great splendour and tranquillity and has at least three services daily.

The Cathedral was the vision of Herbert de Losinga, first Bishop of Norwich and construction commenced in 1096. However, the Cathedral was not finally consecrated until 1278, built mainly of Caen stone, a pale honey-coloured limestone brought over from Normandy, with Norfolk flints and stone from Northamptonshire. The Cathedral spire is 315 feet (96 m) high, the second highest in England and with the largest monastic cloister. It is also one of the finest complete Romanesque buildings in Europe.

On Tuesday afternoon we have arranged for a guided tour of the cathedral including coach transport to and from the Hotel. Numbers are limited and we ask that you sign up (on a first-come, first-served basis) for this event during registration or by Monday lunchtime at the latest.

### **Shopping in Norwich**

Norwich is a unique shopping destination with its large pedestrian areas, quirky, independent shops, 6 day open-air market and spacious modern shopping malls.

Range, quality and that element of surprise are all part of the Norwich shopping experience. The city’s “High Street” includes St Stephen’s and pedestrianised thoroughfares like Gentleman’s Walk and London Street. The Mall Norwich and Chapelfield shopping centre have over 150 stores between them and, together with the city centre, Norwich has all the UK’s leading department stores, including John Lewis, Marks & Spencer, House of Fraser, Bhs and Debenhams.

Dozens of independent shops bring an extra dimension to any trip. Jarrold’s has been named UK Independent Department Store of the Year twice and the Norwich Lanes and Timberhill offer individual fashion and lifestyle shopping, against a background of narrow alleys and beautiful historic buildings. Elm Hill, Norwich’s most famous medieval cobbled street, combines beautifully preserved timber framed houses with shops selling everything from antiques to teddy bears!

## ***Transport to and around Norwich***

### ***Getting to Norwich***

*By Road:* Major trunk roads to the Norwich area are the M11, A11, A12, A140 (from London, the south, the ferry ports and the Channel Tunnel) and the A14, A47, A1/M1 (from the north and west).

*By Train:* Norwich Railway Station is located in central Norwich, a 5 minute walk from the city centre. Train operator National Express East Anglia runs trains to Norwich from London's Liverpool Street Station, every 30 minutes during the day. The journey time is approximately 1 hour 50 minutes. A direct service also links Cambridge to Norwich, with an approximate journey time of 1 hour 10 minutes. Central Trains offer connecting services from the Midlands, north of England and Scotland via Peterborough. Details of local rail travel and on-line train timetables are available ([www.nationalrail.co.uk](http://www.nationalrail.co.uk)) or if you prefer to phone contact National Rail Enquiries on 08457 48 49 50.

**Please Note! There are special arrangements for travel on Sunday April 19<sup>th</sup> due to engineering works between London and Norwich and trains will be replaced by buses for part of the journey extending the journey time considerably. An alternative option is to travel via Cambridge and Ely departing either from London Liverpool Street or London Kings Cross. Participants should look at [www.nationalrail.co.uk/index.html](http://www.nationalrail.co.uk/index.html) to plan their route.**

*By Coach:* National Express coaches travel to Norwich from London and other major cities several times daily. The London to Norwich journey time is around 3 hours. National Express Airport links the main London airports to Norwich with a regular direct service - up to 10 times a day from Stansted, Heathrow and Gatwick airports. For fares and times: 08705 80 80 80 or [www.nationalexpress.com](http://www.nationalexpress.com)

*By Air:* Norwich is home to a major airport, Norwich International, which is just 4 miles from the city centre, serving many UK and international destinations ([www.norwichairport.co.uk](http://www.norwichairport.co.uk)).

The 42<sup>nd</sup> Annual International Meeting of the ESR Group of the RSC will be held at the Ramada Hotel in Norwich, UK. The site is located on the Norwich outer ring road, and is only about 1 mile from Norwich's International airport. For further details, visit [www.ramadajarvis.co.uk/hotels/norwich/travel.aspx](http://www.ramadajarvis.co.uk/hotels/norwich/travel.aspx).

### ***Transport around Norwich***

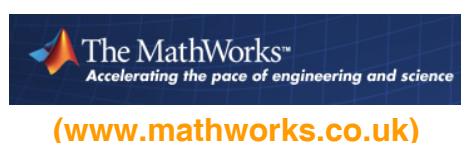
The hotel has a mini-bus service which can be used. On the Tuesday afternoon there will be two buses running into the city and back for those interested. Taxi numbers, if required, are e.g. (01603) 666333 / (01603) 455555; others are available at the hotel reception desk.

## Conference Sponsors:

We are grateful to our sponsors: The University of East Anglia (Faculty of Science), Bruker Biospin, JEOL UK, The Royal Society of Chemistry, COST P15, Ramada Hotels, øerlikon, Photonic Solutions, Goss Scientific, barthel HF-Technik, Mathworks, SpringerWienNewYork and Taylor & Francis. We encourage participants to view the sponsor displays during the meeting.



([www.bruker.com/uk.html](http://www.bruker.com/uk.html))



## Committee of the ESR Spectroscopy Group of the Royal Society of Chemistry

|   |                            |
|---|----------------------------|
| Prof David Collison (Chairman)                | University of Manchester   |
| Dr Chris Kay (Secretary)                      | University College London  |
| Dr Victor Chechik (Treasurer)                 | University of York         |
| Dr Fraser MacMillan (Local Organiser)         | University of East Anglia  |
| Dr. Rachel Haywood                            | RAFT Institute             |
| Dr Helen Williams                             | AstraZeneca                |
| Dr. Damien Murphy                             | University of Cardiff      |
| Dr Mark Newton                                | University of Warwick      |
| Dr Sean McWhinnie                             | Royal Society of Chemistry |
| Dr Louise Ottignon (Companies Representative) | Bruker Biospin             |

## Local Organising Committee

(all University of East Anglia)

Dr Fraser MacMillan (Local Chairman)

Matthew Bawn

Dr. Justin Bradley

Dr. Myles Cheesman

Professor Andrew J. Thomson

Dr. Jessica van Wonderen

# Local Organisation at UEA

## The School of Chemical Sciences and Pharmacy (CAP)

Chemistry research within the School of Chemical Sciences & Pharmacy of which biophysical chemistry is a major theme, is led by 28 faculty members. There are currently about 500 undergraduate students, about 100 graduate students studying for MSc and PhD degrees and about 40 post-doctoral workers. The School's current research grant holding is in excess of £11M. Over the past 3 years more than £9M has been awarded to the School to provide for laboratory refurbishment and the acquisition of major new instrumentation, including a JIF grant of £3.6M for the further development of biophysical chemistry research, over £5.5M from the Wolfson Foundation, HEFCE, the Weston Foundation and SRIF for laboratory refurbishment and the development of new research programmes. Institutes affiliated to the University include the internationally renowned John Innes Centre, Sainsbury Laboratory, and Institute of Food Research. More information about can be found at <http://www.uea.ac.uk/cap>

## Centre for Molecular and Structural Biochemistry

The UEA **Centre for Metalloprotein Spectroscopy and Biology (CMSB)** was originally formed from faculty members in biological and chemical sciences at UEA with the broad aim of understanding: (i) the activation and redox cycling of inorganic substrates involved in the bacterial nitrogen, oxygen and sulphur cycles and (ii) metal ion metabolism and metal-microbe interactions. Since its inception 15 years ago the CMSB has developed an international reputation for excellence in its field based on publication of over 180 papers in peer reviewed journals. Moreover the centre is highly regarded as an exemplar of how to successfully organise science at the life science: chemistry interface. Over the years, members of the CMSB have found themselves no longer working exclusively on redox-active metalloproteins and to reflect this they have recently rebranded CMSB as the **Centre for Molecular and Structural Biochemistry** under the directorship of Prof. David Richardson. The rebranded CMSB was launched in May 2008.

The expertise and techniques within the CMSB comprise microbial energetics, molecular biology, fermentation and large scale protein preparation, flow-flash and stopped flow kinetics, paramagnetic spectroscopies including magnetic circular dichroism and electron paramagnetic resonance spectroscopies, high field nuclear magnetic resonance spectroscopy, thin film protein electrochemistry and X-ray crystallography.

## The Henry Wellcome Unit for Biological EPR at UEA

The Henry Wellcome Unit for Biological EPR, established at UEA in 2002 by the Wellcome Trust/HEFCE Joint Infrastructure Fund (JIF), houses a range of state-of-the art EPR equipment including the UK's first Bruker ELEXSYS E680 FT Hybrid pulsed EPR instrument operating at two frequencies, 9 GHz (X-band) and 95 GHz (W-band), in both continuous wave (CW) and pulsed modes. It is fitted with both PELDOR and ENDOR accessories. In addition, there is a CW X-band ELEXSYS instrument with low loss cavity for measurement of aqueous samples at room temperature as well as a further multi-frequency instrument (at S-, X- and Q-band). Thus UEA has one of the best equipped EPR laboratories in the UK and is experienced in undertaking advanced EPR studies of membrane proteins.



## **JEOL Student Prize Lectures and Reception**

The JEOL student lecture competition started at the Lancaster University meeting and is now in its 14<sup>th</sup> year. The competition is open to postgraduates in their 2<sup>nd</sup> or 3<sup>rd</sup> year and postdoctoral fellows in their 1<sup>st</sup> year. The 15 minute lectures are judged by the ESR Group Committee on the basis of their scientific content and delivery. An engraved medal and monetary prize are kindly provided by JEOL for the winner of the competition, to be presented at the conference banquet.

**This year the competition will take place in the *City Suite* during the Monday afternoon session. The 2009 lectures, selected on the basis of the abstracts submitted, will be:**

### **Anisotropy in Molecular Magnetism; Magnetic Exchange Coupling of Octahedral Cobalt(II) Ions**

*Angelika Boeer, University of Manchester, UK*

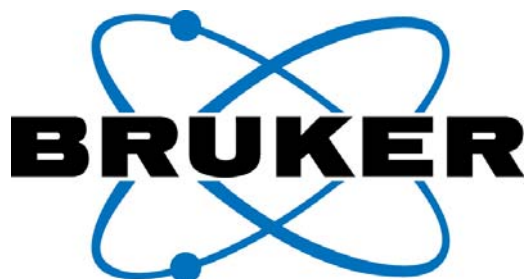
### **EPR and <sup>55</sup>Mn-ENDOR Spectroscopy of the S<sub>2</sub>-state Multi-line Signal of Photosystem II**

*Susanne Pudollek, Freie Universität Berlin, Germany*

### **Exotica in pulsed dipolar spectroscopy: cobalt(II)-nitroxide distances and spatial distribution of nitroxides in membranes and detergents**

*Dr. Bela Bode, J. W. Goethe Universität Frankfurt, Germany*

The wine at dinner on Monday evening and refreshments at the subsequent wine reception during the evening Poster session are sponsored by JEOL.



## Bruker Lecture and Reception

Since 1986 Bruker BioSpin has generously sponsored an annual lectureship and prize, given to a scientist who has made major contributions to the application of ESR spectroscopy in chemical or biological systems.

The Bruker Lectureship for 2009 has been awarded to:



***Professor Gunnar Jeschke***

*ESR Group  
Laboratory of Physical Chemistry  
ETH Zürich  
Switzerland*

The title of his lecture is

## Measuring the Nanoworld

The lecture will take place in the **City Suite at 20:00 on Tuesday 21<sup>st</sup> April**. The wine at dinner on Tuesday evening and refreshments at the wine reception following the lecture are sponsored by Bruker UK.

Previous winners of the Bruker Lectureship:

|                         |                                       |                          |
|-------------------------|---------------------------------------|--------------------------|
| 1986 <b>MCR Symons</b>  | 1995 <b>H McConnell</b>               | 2004 <b>WL Hubbell</b>   |
| 1987 <b>K Möbius</b>    | 1996 <b>BM Hoffman</b>                | 2005 <b>K-P Dinse</b>    |
| 1988 <b>H Fischer</b>   | 1997 <b>KA McLauchlan</b>             | 2006 <b>YuD Tsvetkov</b> |
| 1989 <b>JS Hyde</b>     | 1998 <b>JR Pilbrow</b>                | 2007 <b>D Goldfarb</b>   |
| 1990 <b>JH Freed</b>    | 1999 <b>J Schmidt</b>                 | 2008 <b>E Groenen</b>    |
| 1991 <b>E de Boer</b>   | 2000 <b>D Gatteschi</b>               |                          |
| 1992 <b>G Feher</b>     | 2001 <b>J Hütterman</b>               |                          |
| 1993 <b>NM Atherton</b> | 2002 <b>GR &amp; SS Eaton (Joint)</b> |                          |
| 1994 <b>A Schweiger</b> | 2003 <b>W Lubitz</b>                  |                          |



## **Next Meeting**



**The 43<sup>rd</sup> Annual International Meeting**

*of the*

**Electron Spin Resonance  
Spectroscopy Group**

*of the*

**Royal Society of Chemistry**

*will be held in*

**Cardiff**

*from 21<sup>st</sup> - 25<sup>th</sup> March 2010*

# Upcoming Events

## 7th European Federation of EPR Groups Meeting and Closing Meeting of COST P15

Antwerp, Belgium  
September 6-11, 2009

### PLENARY LECTURERS

Jack FREED (USA)  
Thomas PRISNER (Germany)  
Martina HUBER (the Netherlands)  
Astrid GRÄSLUND (Sweden)  
Klaus LIPS (Germany)



Website: [www.efep2009.ua.ac.be](http://www.efep2009.ua.ac.be)



Universiteit  
Antwerpen





## International EPR/ESR Society

The Society is pleased to announce that the IES Awards for 2009 are:

**Silver Medal for Chemistry: Takeji Takui.**  
**Silver Medal for Biology/Medicine: Gary Buettner.**  
**Young Investigator's Award: Stefan Stoll.**

For more information on the IES and how to join visit:  
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