

## News from the UK cwEPR National Service at The University of Manchester

The current contract for the Service ends in February 2010, and is being considered under EPSRC's review of "mid-range facilities", for which the UK EPR community submitted a "Statement of Need". The outcome of the review is expected by this Autumn. **Current facilities:** Multi-frequency continuous wave and variable temperature at L-, S-, X-(|| and  $\perp$  mode), K-, Q- and W-bands; simulation software for  $S = \frac{1}{2}$  and  $S > \frac{1}{2}$  systems; *in situ* electrochemical and optical excitation; on-site training, remote access to software, user group meetings, biannual training workshops. [www.epr.chemistry.manchester.ac.uk](http://www.epr.chemistry.manchester.ac.uk)

To discuss applications for time on the Service contact: [eric.mcinnnes@manchester.ac.uk](mailto:eric.mcinnnes@manchester.ac.uk), tel: 0161-275-4469, [david.collison@manchester.ac.uk](mailto:david.collison@manchester.ac.uk), tel: 0161-275-4660 or [ruth.edge@manchester.ac.uk](mailto:ruth.edge@manchester.ac.uk), tel: 0161-275-4580/2. Contact Martin Sweet at [martin.sweet@epsrc.ac.uk](mailto:martin.sweet@epsrc.ac.uk) for information about other EPSRC services.

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### European Federation of EPR Groups Summer School, St Andrews, 22 Aug.– 1 Sept. 2008

The fourth meeting of this triennial series was hosted by the University of St Andrews, and was also associated with the 64<sup>th</sup> Scottish Universities International Summer School in Physics, the major Training School of the COST P15 Action on Advanced Paramagnetic Resonance Methods in Molecular Biophysics and the biannual UK EPSRC EPR Workshop. European Federation of EPR Groups (EFEP) initiated the idea of EPR summer schools on a triennial schedule. The School was enthusiastically received by the attendees, who were complimentary about the setting up of small group tutorials and introductory lectures alongside the more advanced material.

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### 7<sup>th</sup> European Federation of EPR Groups Meeting and Closing Meeting of COST P15, Antwerp, 6 – 11 Sept. 2009

Plenary lecturers will include Jack Freed (USA), Thomas Prisner (Germany), Martina Huber (The Netherlands), Astrid Gräslund (Sweden) and Klaus Lips (Germany). The conference web-site is at: <http://www.efep2009.ua.ac.be>. The RSC ESR Spectroscopy Group is sponsoring attendance by young UK scientists.

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**THANKS** Thanks go to retiring committee members Helen Williams and Mark Newton, who left the committee at the AGM. The organisation of our conference at Norwich has been due in large part to the efforts of the local organising team chaired and led by Dr Fraser MacMillan and assisted by Matt Bawn, Justin Bradley, Myles Cheesman and Jessica van Wonderen from UEA. And also thanks to UEA for sponsoring the conference banquet, to Professor Andrew Thomson for his enthusiastic speech after the banquet about the history and good health of EPR in the UK, and to the staff of the Ramada Hotel, together with David Collison (current Chair), Dr Chris Kay (Secretary) and Dr Victor Chechik (Treasurer).

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**Membership** of the ESR Group currently stands at about 100. All scientists who are members of the Royal Society of Chemistry, and have an interest in ESR/EPR spectroscopy, are invited to join by ticking the ESR Spectroscopy Group box on their RSC membership renewal forms. The individual subscription fee of £5 is directly included in the annual RSC membership/Group fee, and Membership carries entitlement to reduced registration fees at the ESR Group annual conference.

**Website:** <http://www.esr-group.org.uk> **Web Editor:** Chris Kay and Ilya Kuprov

**Newsletter Editor:** Prof. David Collison

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## ESR SPECTROSCOPY GROUP

### Newsletter July 2009

The 42<sup>nd</sup> Annual ESR Conference took place from Sunday 19<sup>th</sup> – Thursday 23<sup>rd</sup> April 2009 at the Ramada Hotel Norwich, hosted by The University of East Anglia, with lectures in the City Suite Theatre and posters in the City Suite Reception Area.

The 2009 Bruker Prize Lecture by Professor Gunnar Jeschke (ETH Zürich Switzerland) spoke under the title: *Measuring the Nanoworld*. Dr Christiane Timmel introduced the lecture, and in a fascinating talk from Professor Jeschke we learned about the use of pulsed EPR techniques applied to measurements on and between nano-objects.



David Collison (ESR Group Chair), Roger Ladbury (Bruker BioSpin), Gunnar Jeschke (2009 Bruker Prize), Christiane Timmel (Oxford).

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11 different countries, and once again over a quarter of the participants were graduate students, a situation that continues to suggest a healthy future for ESR spectroscopy.



The scientific programme was supported by social evenings and receptions sponsored by the ESR Group of the RSC, JEOL and Bruker. The free Tuesday afternoon allowed delegates the chance to explore Norwich and have a guided tour of Norwich Cathedral.

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**Next RSC Conference:**  
**Cardiff, 21 – 25 March 2010**  
[esr-group.org](http://esr-group.org)

There were over 100 attendees representing Keynote lectures were presented by: Wayne Hubbell (UCLA), *Functional protein dynamics from site-directed spin labelling*; Fraser MacMillan (University of East Anglia), *Correlating the structure and function of proteins using EPR*; Martin Kaupp (Würzburg), *Quantum chemical calculations of EPR parameters as a tool to study metalloenzyme sites* and sponsored by the EPSRC National Service for cw EPR Spectroscopy; and Richard Cammack (King's College London), *Biochemical targets for advanced EPR weaponry*. As well as the Keynote lectures we had a series of excellent invited and offered short talks, a poster session and the Bruker Lecture and the JEOL student talk session.

This year there were 35 posters and one was selected to win the poster prize with the traditional bottle of whisky going to Richard Ward (Dundee) for his poster: *PELDOR points towards local structural heterogeneity within a critical intermediate in nucleosome assembly*.

The poster prize winner and four runners-up, Kazuhiro Ichikawa, Muhammad Warsi, Dorith Wunnicke and Richard Brosi each received a copy of a recently published text on EPR spectroscopy, which included three copies of *High-field EPR spectroscopy on proteins and their model systems*, by Klaus Möbius and Anton Savitsky, these copies being generously donated by the publishers, the Royal Society of Chemistry.

**Full abstracts of the Keynote lectures, invited and offered short talks, posters and a photo gallery are on the website:** [www.esr-group.org.uk](http://www.esr-group.org.uk)

The JEOL prize medal attracted several excellent applications from which three were selected to present their talks. The JEOL prize medal for the best oral presentation by a young scientist was awarded to Angelika Boeer (Manchester) for her talk: *Anisotropy in molecular magnetism: magnetic exchange coupling of octahedral cobalt(II) ions*. Joint runners-up were Susanna Pudollek (Freie Universität Berlin) and Bela Bode (JW Goethe Universität Frankfurt). All the student talks were of a very high calibre. The three students were also presented with cash prizes by Dr Yukio Mizuta (JEOL).



JEOL Student Talk Prize: Angelika Boeer, Bela Bode and Susanna Pudollek.



Poster Prize winners with David Collison: Richard Ward, Kazuhiro Ichikawa, Muhammad Warsi (absent), Dorith Wunnicke, Richard Brosi.



**42<sup>nd</sup> RSC ESR Spectroscopy Group Conference, Norwich 2009.**  
Photograph by Arthur Heiss

## INTERNATIONAL EPR/ESR SOCIETY (IES)

### IES Awards 2009

**Silver Medal for Chemistry: Takeji Takui**

**Silver Medal for Biog/Medicine: Gary Buettner**

**Young Investigator's Award: Stefan Stoll**

Further information in the International EPR Society (IES) can be found on their website: [www.ieprs.org](http://www.ieprs.org). Each year one issue of the EPR Newsletter is a public issue which can be downloaded free from: <http://www.epr-newsletter.ethz.ch/>.

### IES Awards Schedule 2010-2012

2010 - Physics/Materials

2011 - Gold + Instrumentation + Young Investigator

2012 - Biology/Medicine + Chemistry

### EPR Conferences 2010-2012

A list of forthcoming EPR meetings is available at: [www.ieprs.org](http://www.ieprs.org)

## ESR GROUP COMMITTEE.

The ESR Group committee was elected at the AGM held at Norwich on the 22<sup>nd</sup> April 2009.

*Chairman* Prof David Collison 2007-2010 [david.collison@manchester.ac.uk](mailto:david.collison@manchester.ac.uk)

*Secretary* Dr Chris Kay 2006-2011 [c.kay@ucl.ac.uk](mailto:c.kay@ucl.ac.uk)

*Treasurer* Dr Victor Chechik 2005-2010 [vc4@york.ac.uk](mailto:vc4@york.ac.uk)

### Ordinary Members

Dr Fraser MacMillan 2007-2010 [fraser.macmillan@uea.ac.uk](mailto:fraser.macmillan@uea.ac.uk)

Dr Rachel Haywood 2008-2011 [haywoodr@raft.ac.uk](mailto:haywoodr@raft.ac.uk)

Dr Rob Hill 2008-2011 [rob.hill@bruker.co.uk](mailto:rob.hill@bruker.co.uk)

Dr Damien Murphy 2008-2011 [murphydm@cf.ac.uk](mailto:murphydm@cf.ac.uk)

Dr Ilya Kuprov 2009-2012 [ilya.kuprov@durham.ac.uk](mailto:ilya.kuprov@durham.ac.uk)

Dr David Norman 2009-2012 [d.g.norman@dundee.ac.uk](mailto:d.g.norman@dundee.ac.uk)

Dr Christiane Timmel 2009-2012 [christiane.timmel@chem.ox.ac.uk](mailto:christiane.timmel@chem.ox.ac.uk)