



## ***Ernst Awards 2009***

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.

Due to the ten years anniversary in 2008 the prize money was raised to

**500€**

(besides travelling and accomodation to participate the group meeting).

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 1st, 2009**; acceptance letters from journal referees may be supplied until July 31th, 2009.

All manuscripts will be evaluated by members of a scientific committee under the guidance of Dres. H. Kogler and W. Jahnke and should be send in electronic form to

**Dr. E. Haupt**  
**erhard.haupt@uni-hamburg.de**

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

Für diejenigen, die es übersehen haben: im Heft 3/2009, S. 353 der *Nachrichten aus der Chemie* war ein ausführlicher Bericht über die Entwicklung der Auszeichnung

und der PreisträgerInnen der letzten 10 Jahre. Leider wurden beim Layout der gedruckten Fassung die Grafiken in Abb. 1 und 2 vertauscht.

Vielen Dank nochmals an Herrn Dr. Kogler und seinen Helfern für diese Aufbereitung.

## ***Prof. A. Garming 75***

Nach dem Studium der Chemie in Münster war Prof. Alfons Garming zur Promotion an die TU Clausthal gekommen. Im Rahmen seiner Dissertation (1967) und beispielsweise noch im Jahr 1969 im Zuge organisch-chemischer Arbeiten wie die zu "Umsetzungen einiger beta-substituierter Acrylnitrile mit Diethylphosphin" wurden seine eigenen NMR-Spektren zunächst von dem Clausthaler Organiker und Spektroskopiker Prof. Horst Luther aufgenommen. Doch schon bald übernahm Alfons Garming zunehmend Aufgaben in der Lehre und trieb den Ausbau der NMR-Abteilung an der TU Clausthal voran. Zusammen mit Prof. Friedrich Boberg galt sein Hauptinteresse in den 80er Jahren Thiophenderivaten und anderen Heterocyclen. Als Werkzeug diente ab 1978 ein Varian XL-200 NMR-Spektrometer mit Supraleitermagnet. Anfang der 90er Jahre wurden unter der Institutsleitung von den Professores Dieter Kaufmann bzw. Ernst Schaumann vor allem Bor-, Silicium- und nach wie vor schwefelhaltige organische Verbindungen bearbeitet, dazu kamen Naturstoffe und Analoga. Die NMR-gestützte Strukturaufklärung all dieser organischen Verbindungen war stets ein persönliches Anliegen von Alfons Garming, dem er sich unermüdlich, oftmals bis in späte Abendstunden widmete. Nach seiner Emeritierung 1999

fiel dann zwar die Aufrüstung des von ihm Mitte der 90er Jahre in Betrieb genommenen 400 MHz NMR-Spektrometers mit Gradiententechnik schon in die Zeit seines fachlichen Nachfolgers Dr. Jan C. Namyslo, jedoch die fortwährende, nahezu stete Anwesenheit im Institut für Organische Chemie und die just zu spürende Begeisterung über die in diesem Sommer in Clausthal anstehende Installation eines 600 MHz Forschungsspektrometers unterstreicht:

Alfons Garming - ein NMR-Spektroskopiker mit Leib und Seele.

*Dr. J.C. Namyslo, Clausthal-Zellerfeld*

### ***New EPR (ESR) books***

This month three **Electron Spin Resonance** books have become available, which is a quite unusual peak. Two of these had been planned for a release in 2008 but then either rescheduled (*Brustolon - Giamello*) or just delayed (*Hagen*). There are two more delayed 2008 ESR books still in the pipelines and another two are scheduled for the next two months (see my list of [ESR books](#)). Which means that the current year should break all records in ESR publishing! The three titles which have just reached the distribution channels are:

#### ***Principles and Applications of Electron Paramagnetic Resonance Spectroscopy,***

Edited by [Marina Rosa Brustolon](#) and **Elio Giamello**, published by Wiley.

This book represents a pragmatic guide to navigating through the maze of EPR/ESR spectroscopy fundamentals, techniques, and applications. In other words, if you are about to operate an ESR spectrometer and carry out actual measurements on your own, this is what you should read first. Contributions of 18 Authors had been carefully stitched together by two Editors, themselves foremost Italian EPR scientists, each with decades of practical experience.

#### ***Biomolecular EPR Spectroscopy***

by [Wilfred Raymond Hagen](#), published by CRC.

Unlike most bio-whatever books, this one does not just *mention* EPR. It takes a broad view of the whole area specifically from the *EPR point of view* and covers all important bioEPR applications, including low-spin and high-spin metalloproteins, spin traps and spin labels, interaction between active sites, redox systems, etc. It is loaded with practical *do's and don'ts* based on the Author's 30 years of experience and contains also an unprecedented set of software utilities which allow readers to tackle many problems of spectral analysis.

#### ***High-Field EPR Spectroscopy on Proteins and their Model Systems: Characterization of Transient Paramagnetic States***

by [Klaus Möbius](#) and **Anton Savitsky**, published by RSC (Royal Society of Chemistry).

This opus offers an overview of experimental techniques in high-field EPR spectroscopy applications to biology and chemistry, focusing on the use of the technique in conjunction with site-specific mutation strategies and advanced quantum-chemical computation methods to reveal protein structure and dynamics. The theoretical and instrumental background of high-field EPR is described using examples of paradigmatic protein systems, such as photosynthesis. The information obtained complements that obtained from protein crystallography, solid-state NMR, infrared and optical spectroscopy. Unique features include comparisons of information content of EPR, ENDOR, Triple resonance, ESEEM and PELDOR taken at different microwave frequencies and magnetic fields.

All three books are similarly priced and fall into the \$100 category - which is not too bad, considering the relatively small size of the EPR market.

*Quelle:*

Stan's NMR Blog (entry March 15,2009)  
<http://www.ebyte.it/stan/blog.html>

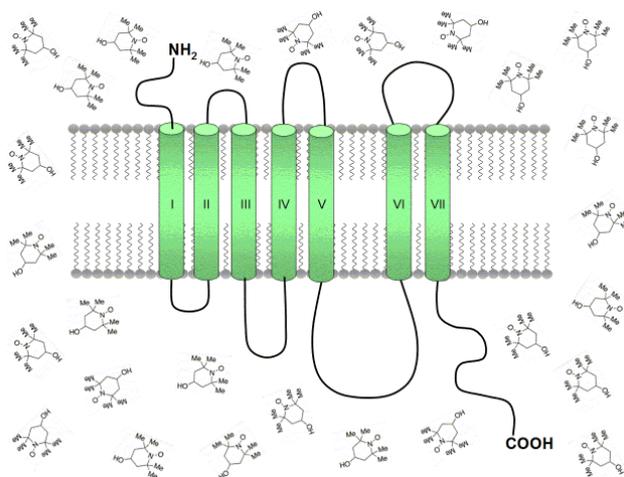
*Thanks for the efforts !*

## Basic Technology DNP Project Open Day at The University of Warwick

1<sup>st</sup> May 2009

Department of Physics, University of Warwick  
Coventry, United Kingdom

An open day at the University of Warwick will take place to provide information and to promote discussion about dynamic nuclear polarisation enhanced nuclear magnetic resonance (DNP-NMR). The day is aimed at people from a variety of backgrounds, from researchers that are interested in finding out if this technique could provide information on materials to experts in the magnetic resonance community. Please see <http://go.warwick.ac.uk/dnp> for more details and to register.



**Model of neurotensin receptor 1:**  
a G-protein coupled receptor. DNP will be used to provide significant insights into its structure and that of its natural agonist, neurotensin.

### Timetable

9:45	Registration and refreshments <i>In Dept. of Physics, room P521A</i>	12:00	Hiroki Takahashi <i>Gyrotron microwave sources</i>
10:15	Mark Smith <i>Introduction and Overview</i>	12:20	Lunch and poster session
10:35	Kevin Pike <i>Background</i>	13:10	Walter Kockenberger <i>DNP at Nottingham</i>
10:55	Refreshments	13:30	Graham Smith <i>Microwave hardware</i>
11:20	Mark Newton <i>Microwave frequencies and EPR</i>	13:50	Tony Watts <i>Labelled samples</i>
11:40	Ray Dupree <i>Radio frequencies and NMR</i>	14:10	Tours of laboratories <i>In Millburn House</i>
		15:00	Finish



<http://go.warwick.ac.uk/dnp>

1<sup>st</sup> May 2009

## The DNP Project

This EPSRC funded Basic Technology Project is a collaboration between researchers from different backgrounds whose combined skills and knowledge are being used to face the challenges provided by this exciting technique. It aims to develop DNP-enhanced solid-state NMR spectrometers that will enable NMR to be used in areas of science previously inaccessible due to sensitivity limitations. These will include biomolecular structure and function, electrochemistry, fuel cells and catalyst technology, and defects in semiconducting materials.



### Academic staff

Mark E. Smith, Warwick – Solid-state NMR

Mark E. Newton, Warwick – EPR

Ray Dupree, Warwick – Solid-state NMR

Andy P. Howes, Warwick – Solid-state NMR

Graham M. Smith, St Andrews – Microwave instrumentation

Tony Watts, Oxford – Biochemistry of biomembranes



### Research project staff and students

Kevin J. Pike, Warwick – Project Manager

Eugeny V. Kryukov, Warwick – Postdoctoral Researcher

Tom F. Kemp, Warwick – Postdoctoral Researcher

Hiroki Takahashi, Warwick – Postdoctoral Researcher

James F. MacDonald, Warwick – PhD Student

David R. Bolton, St Andrews – Postdoctoral Researcher

Marcella Orwick, Oxford – PhD Student



The project also benefits from collaboration with companies that manufacture magnetic resonance and microwave hardware, and those in the field of materials science.

## Registration and travel

Registration is free but we need everybody who wishes to attend to complete the on-line form at <http://go.warwick.ac.uk/dnp/openday>. The deadline for registration is **Wednesday 10<sup>th</sup> April 2009**. Refreshments will be provided, including a buffet lunch.

Please visit <http://go.warwick.ac.uk/dnp/miscellaneous> for details about how to get to The University. The Open Day will start in the Main Physics Building. Members of the Magnetic Resonance groups will be available to take people to the Centre.

If you have any special requirements for food or access then please note this on the on-line registration form. Please also indicate any other help that we can offer you.



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