

# UK Magnetics Society

## UKMAG two-day seminar

HOSTED AND CO-SPONSORED BY VACUUMSCHMELZE GmbH & Co KG, GERMANY



## *Advanced Magnetic Materials and their Applications*

at

Tulip Inn  
Kurt-Blaum-Platz 6  
63450 Hanau  
Germany

12 - 13 October 2009

## PROGRAMME

The global search for better energy efficiency in our daily lives is a constant demand from today's markets. Advanced soft and hard magnetic materials offer the means to fulfil these demands, in markets as diverse as aerospace, automotive, installation technology and renewable energy. This seminar will highlight recent advances in material properties and processing technology, together with application based developments. For soft magnetic materials this will include a particular focus on crystalline CoFe, amorphous and nanocrystalline alloys, and for hard magnetic materials the focus will be on the sintered Nd-Fe-B and Sm-Co magnet compositions. Application areas could be in developing technologies such as hybrid electric vehicles, wind energy, electronic energy metering, sensors and the more electric aircraft.

The venue for this event will be the Tulip Inn in Hanau, located less than 30 minutes by taxi from Frankfurt am Main International Airport. Frankfurt is well served with many direct flights from the UK and Continental airports. The VACUUMSCHMELZE head office and main works is located only a five minute walk from the hotel and a factory tour is planned for Tuesday afternoon, 13 October. The seminar dinner will be held on the evening of 12 October.

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## SEMINAR FEE

The fixed seminar fee includes attendance at the technical sessions and an abstract booklet. Refreshments, evening seminar dinner on 12 October, lunch on 12 and 13 October and a plant tour will be kindly provided by Vacuumschmelze GmbH & Co Kg. Accommodation costs are paid separately and are not included in the seminar fee.

## SEMINAR VENUE

Tulip Inn, Kurt-Blaum-Platz 6, 63450 Hanau, Germany Tel.: +49 (0) 6181 3055 0 Fax: +49 (0) 6181 3055 444

## OVERNIGHT ACCOMMODATION

A block booking of overnight accommodation for the nights of Sunday 12 October, and Monday 13 October, has been reserved at the Tulip Inn, Kurt-Blaum-Platz 6, 63450 Hanau, Germany Tel.: +49 (0) 6181 3055 0 Fax: +49 (0) 6181 3055 444, [www.tulipinnhanau.com](http://www.tulipinnhanau.com) **BOOKINGS SHOULD BE CONFIRMED WITH THE HOTEL AS SOON AS POSSIBLE.**

Single room: 84 Euros per night Double room: 114 Euros per night . **Please quote reference Vacuumschmelze when making a booking.**

The 3\*\*\* star Tulip Inn Hanau is directly located in the city centre which offers modern accommodation and excellent transport connections.

## ABSTRACT BOOKLET

A set of extended abstracts will be available to all delegates on registration.

## SEMINAR DINNER

A seminar dinner will be held at the Tulip Inn Hotel on the evening of Monday, 12 October.

## TOUR OF VACUUMSCHMELZE GMBH & CO KG

After lunch on Tuesday, 13 October, delegates will be invited to Vacuumschmelze GmbH & Co Kg to view the production facilities. Following the plant tour, luggage can be collected from the Tulip Hotel and delegates are free to make their homeward journey.

## MONDAY, 12 OCTOBER 2009

0900	<b>REGISTRATION</b>
1000	<b>WELCOME</b> - Mr Helmut Doenges, Vacuumschmelze GmbH & Co KG, Germany <b>Session: Soft, Nanocrystalline and Amorphous Materials - Chairman TBC</b>
1015	<b>Measurement of Soft Magnetic Materials for Operation Conditions</b> - Dr Michael Hall, National Physical Laboratory, UK
1045	<b>Advanced Soft Magnetic CoFe Materials and CoFe Lamination Stacks</b> - Dr Joachim Gerster, Dr Witold Pieper, Dr Niklas Volbers, Vacuumschmelze GmbH & Co KG, Germany
1115	<b>Advances in SMC Technology - Materials and Applications</b> - Lars Hultman, Hoganäs AB, Sweden
1145	<b>Helmholtz Based Equipment with Spatial Resolution to Measure the Efficiency of Complex Magnetic Shielding Configurations</b> - Dr Stefan Hiebel, Dr Denis Filostovich, SEKELS GmbH & Co KG, Germany
1215	<b>LUNCH</b>
1345	<b>Nanocrystalline High Voltage High Frequency Power Transformers</b> - Dr Todor Filchev, University of Nottingham, UK
1415	<b>Specialised CMC's (Common Mode Chokes) from Nanocrystalline Soft Magnetic Cores Provide High Performance EMC Solutions in Automotive Power Electronics</b> - Dr Ralf Koch, Vacuumschmelze GmbH & Co KG, Germany
1445	<b>TEA/COFFEE</b> <b>Session: Sintered Hard Materials - Chairman - Dr Michael Hall, National Physical Laboratory, UK</b>
1515	<b>Advanced Permanent Magnets for Energy Applications</b> - Dr Oliver Gutfleisch, IFW Dresden, Germany
1545	<b>Magnetic Sensors in Automotives</b> - Oliver Marle, Continental Automotive, SAS France
1615	<b>END</b>
1900	<b>SEMINAR DINNER (HOSTED BY VACUUMSCHMELZE GMBH &amp; CO KG)</b>

## TUESDAY, 13 OCTOBER 2009

0900	<b>Applications for Permanent Magnets in Electrical Machines - A New Concept of Hybrid Permanent Magnet Machines</b> - Professor Qiang Zhu, Dept of Elec & Elec Engineering, University of Sheffield, UK
0930	<b>Mechanical Applications of Permanent Magnets: Magnetic Couplings, Gears and Actuators</b> - Dr Gareth Hatch, Dexter Magnetic Technologies Inc, USA
1000	<b>TEA/COFFEE</b>
1030	<b>Magnetic Halbach Arrays for Efficient Energy Converting</b> - Dr Sunny Zhang, Bakker Magnetics, The Netherlands
1100	<b>Title TBA</b> - IFW Dresden, Germany
1130	<b>Optimised Permanent Magnets for Undulators</b> - Dr Franz-Josef Boergermann, Vacuumschmelze GmbH & Co Kg, Germany (co-written by Georg-Werner Reppel and Kaan Üstüner)
1200	<b>LUNCH</b>
1330	<b>VACUUMSCHMELZE FACTORY TOUR</b>
1530	<b>END</b>

