

DGM

2nd Announcement  
Registration

# Magnesium

7th International Conference on Magnesium  
Alloys and their Applications



6-9 Nov 2006



International Congress Center Dresden,  
Germany

Deutsche Gesellschaft  
für Materialkunde e.V.

In Cooperation with:



TIMS

Deutsche  
Forschungsgemeinschaft  
**DFG**

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## Scope

Magnesium is the most promising metallic light weight material for a universal use in transportation industry to reduce fuel consumption and emissions. Owing to their intrinsic characteristics of light weight, promising mechanical properties, their high recyclability and the reduced prices for primary magnesium, the interest for implementation of magnesium base materials as a substitution for other materials or as a competitive material for new design strategies has increased. But magnesium alloys have to compete with various light structural materials such as aluminium, steel and polymers with focus on economical aspects, materials and component requirements.

After intensive research during the last decade, a number of new research programmes in Europe, China and North America created new ideas and stimulated competition for advanced developments in magnesium technology. The implementations of new alloys in power trains, the use of wrought alloys in 3C application and cast alloys for parts with decorative surface are the indications for the sustainable research and development in the past. Nevertheless, the production of parts by high pressure die casting is still the predominant technology. Wrought alloys play a secondary role as niche products. Reasons are a lack of knowledge on the behaviour of wrought alloys, and limited availability of economical processes and alloys for extrusions, sheets and forgings. In the future new developments in alloys and processes open new opportunities for increased use of wrought alloys. This is one focus of the conference. The second focus addresses additional

challenges, which decide on the extension of the use of magnesium materials, e.g the corrosion behaviour and development of reliable surface coatings.

K. U. Kainer  
Chairman

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## Plenary Talks

### **A Reassessment of the Grain Refinement Mechanisms of Magnesium Alloys**

D. StJohn, University of Queensland, Brisbane (Australia); et al.

### **AM-lite: an innovative new alloy opens fresh opportunities for magnesium applications**

C. Kettler, AMT Europe GmbH, Heidelberg (Germany)

### **Wrought Mg Alloys for Civil Aircraft Application - A Process Chain Approach**

M. Kettner, ARC Leichtkompetenz-zentrum Ranshofen GmbH (Austria); et al.

### **Mg Research and Technology Development in North America: An overview of government-funded programs**

J. Jackman, CANMET Materials Technology Laboratory, Ottawa, Ontario (Canada); et al.

### **Advancements in High Pressure Die Casting of Magnesium**

H. Gjestland, Hydro Aluminium, Porsgrunn (Norway); et al.

### **Development and Application of Wrought Magnesium Alloys in China**

F. Pan, Chongqing University (China); et al.

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## International Committee

**Prof. Dr. E. Aghion**

Ben Gurion University, Beer Sheva,  
Israel

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U.S. Department of Energy,  
Washington, USA

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Chongqing, China

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Canada

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Materials Science, Moscow, Russia

**Dr. T. Wilks**

Magnesium Elektron, Manchester,  
UK

**Dr. H. Westengen**

Hydro Aluminium, Porsgrunn,  
Norway

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## National Committee

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Geesthacht GmbH

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Universität Hannover

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GmbH, Bottrop

**Dipl.-Ing. C. Schendera**

Hydro Magnesium, Bottrop

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Meschede

**Dr. J. Wesemann**

Ford Forschungszentrum Aachen  
GmbH

## Overview

	<b>Monday</b> 6 Nov 2006	<b>Tuesday</b> 7 Nov 2006	<b>Wednesday</b> 8 Nov 2006	<b>Thursday</b> 9 Nov 2006
<b>Morning</b>	<ul style="list-style-type: none"> <li>• Registration</li> <li>• Poster Mounting</li> <li>• Opening</li> </ul>	<ul style="list-style-type: none"> <li>• Authors' Coffee</li> <li>• Lectures in Parallel <b>A / C   E</b></li> </ul>	<ul style="list-style-type: none"> <li>• Authors' Coffee</li> <li>• Lectures in Parallel <b>G   H</b></li> </ul>	<ul style="list-style-type: none"> <li>• Authors' Coffee</li> <li>• Lectures in Parallel <b>L   I / K</b></li> </ul>
<b>Afternoon</b>	<ul style="list-style-type: none"> <li>• 2 Plenary Talks</li> <li>• Lectures in Parallel <b>A   E</b></li> </ul>	<ul style="list-style-type: none"> <li>• 2 Plenary Talks</li> <li>• Short Lectures Poster Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Lectures in Parallel <b>J / B   D</b></li> </ul>	<ul style="list-style-type: none"> <li>• Plenary Talk</li> <li>• Lectures in Parallel <b>C   I / K</b></li> <li>• Closing Speech</li> </ul>
<b>Evening</b>	<ul style="list-style-type: none"> <li>• Welcome Reception</li> </ul>	<ul style="list-style-type: none"> <li>• Poster Night in the Foyer</li> </ul>	<ul style="list-style-type: none"> <li>• Conference Banquet</li> </ul>	<ul style="list-style-type: none"> <li>• Sophienkeller</li> </ul>

The lecture programme starts on Mon at 13:00 h. The end of the conference is on Thu at 15:00 h.

All presentations are listed at the conference website:  
[www.dgm.de/magnesium](http://www.dgm.de/magnesium)

## Topics

- A** Alloy development
- B** Simulation, Modelling
- C** Microstructural Evolution
- D** Mechanical Properties
- E** Corrosion and Surface Treatment
- G** Casting, Recycling, Melting
- H** Wrought Alloys
- I** Magnesium Matrix Composites
- J** Post Processing
- K** Application
- L** Research Programmes

## Poster Sessions / Award

The Poster Session will form an integral part of the conference. Poster authors are requested to introduce their poster orally in form of a short lecture in the plenary hall (3 minutes, max. of 2-3 transparencies). Subsequently, there will be discussion time dedicated, and the authors will be available for further discussion in front of the poster panels. The short presentation is the key to your poster that will be on display next to the lecture hall. We are very confident that this will stimulate an exciting communication process. The discussion will merge into the poster evening, where refreshments and snacks will be provided. The best posters will be awarded a prize.



Dresden, Frauenkirche

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## Social Programme

### **Monday, 6 November 2006**

- 19:00 Welcome Reception at the Institut für Leichtbau und Kunststofftechnik of the Technical University of Dresden.

### **Tuesday, 7 November 2006**

- Poster Evening with drinks and snacks.
- Concert in the famous Semper Opera House at a price of 55 EUR per ticket. You may obtain the concert tickets through the Conference Office subject to availability.

### **Wednesday, 8 November 2006**

- The Conference Dinner will take place in the picturesque ballroom of the "Ball- und Brauhaus Watzke", which is one of the most beautiful ballrooms throughout the Free State of Saxony. Do not miss this opportunity.

### **Thursday, 9 November 2006**

- Visit of the Frauenkirche Dresden at 11:00 and 14:00 h. Please note that the number of participants is limited. We highly recommend early registration. The building of the Frauenkirche includes thousands of stones from the old church, frescoes of biblical scenes adorn the walls, meticulously repainted and faithful to the original designs. The visit to the Church of Our Lady is an unforgettable experience. The tour will take approximately 50 min. There is the possibility to join a guided city tour at the end of the church visit.

- We have pre-booked space in the Sophienkeller of Dresden, a very beautiful restaurant. Be prepared for an extraordinary evening.



International Congress Center Dresden

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## Exhibition

The exhibition will take place in conjunction with the conference. It is your most important tool to gain new contacts or to strengthen the existing business relations.

This international conference enables you to communicate beyond your borders and to actively take part in the latest developments within your field.

Due to the thematic specialisation of this conference, you are exhibiting within your target group, which offers you the opportunity to present your products and services appropriately, and it is also the most cost effective way to introduce your company to an international group of people.

The exhibition will be accommodated adjacent to the lecture halls and will thus offer a most attractive platform for the presentation of your company. There is more than 400 square metre of exhibition space available for introducing your products and services. Please note that the coffee breaks and lunches will be served in the exhibition area, and that our Poster Sessions will take place on Tuesday afternoon in the exhibition area.

The renting price starts from EUR 168 per sqm. The deadline for registration is **1 September 2006**.

All information about prices, detailed floor plan, registration form and all other details are available on our website: [www.dgm.de/magnesium](http://www.dgm.de/magnesium)

For further information or questions please contact Exhibition Coordinator at:

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Senckenberganlage 10  
60325 Frankfurt  
Germany  
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Fax: +49-(0)69-75306-733  
E-Mail: [expo@dgm.de](mailto:expo@dgm.de)



Semper Opera House

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## Venue

### Location

The International Congress Center is one of the most modern and pleasant congress centers in Europe. Situated directly on the banks of the river Elbe, it follows the standard of these world highlights of architecture: the Semper Opera House, the Zwinger or the Brühl Terrace.

### Conference Location

International Congress  
Center Dresden  
Ostra-Ufer 2  
Germany  
[www.dresden-congresscenter.de](http://www.dresden-congresscenter.de)

### Associated Hotel

MARITIM Hotel  
Ostra-Ufer 2

A contingency of hotel rooms has been reserved in several hotels in Dresden. Please refer to the conference website for the complete list of hotels:

<http://www.dgm.de/magnesium>

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## General Information

### Proceedings

The papers presented at the conference will be published in a proceedings volume that will be available at the conference. One copy of the proceedings volume is included in the conference fee for speakers who have submitted a manuscript. Detailed instructions for the authors will be available at the conference website.

Submission of Manuscripts:  
31 July 2006

### Conference Secretariat

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für Materialkunde e.V.  
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# Magnesium 2006

7th International Conference  
on Magnesium Alloys  
and their Applications

## Registration Form

Online: [www.dgm.de/magnesium](http://www.dgm.de/magnesium)

Fax: +49-(0)69-75306-733

.....  
Name, First Name, Title

.....  
University / Company

.....  
Institute / Department

.....  
Street

.....  
Country, Zip Code, City

.....  
Phone / Fax

.....  
E-Mail

<b>Registrations</b>	<b>1st</b>	<b>2nd</b>	<b>≥3rd</b>
from the same institute/department			
Industry	<input type="checkbox"/> EUR 850,-	<input type="checkbox"/> EUR 600,-	<input type="checkbox"/> EUR 350,-
University	<input type="checkbox"/> EUR 650,-	<input type="checkbox"/> EUR 350,-	<input type="checkbox"/> EUR 250,-
Student/Retired <sup>1)</sup>	<input type="checkbox"/> EUR 250,-		
Proceedings	<input type="checkbox"/> EUR 155,-		

Welcome Reception, 6 Nov.  incl.

Poster Evening, 7 Nov.  incl.

Conference Banquet, 8 Nov.  
- for participants  EUR 20,-  
- for accompanying persons  EUR 60,-

Visit of the Frauenkirche, 9 Nov.  
- 11:00 h  EUR 10,-  
- 14:00 h  EUR 10,-

Closing at Sophienkeller,  
9 Nov., evening  at one's own expense

### Payment Mode

Bank transfer  Master Card  Visa

After registration, each participant will receive an invoice.

.....  
Card No.

.....  
Expiry date

.....  
Card Verification Value  
CW2/CVC2/KPN <sup>2)</sup>

.....  
Date/Signature

<sup>1)</sup> Students up to 28 years, ID required

<sup>2)</sup> The last 3 digits on your credit card. **Obligatory!**