Abstract Submission
The submission of abstracts is solicited for oral or poster presentation according to the above list of conference topics. Abstracts should be submitted with a length around 2000 characters and a maximum length of one page. The abstracts have to be submitted via internet. Please find more information at www.pse2010.net. The abstracts have to be submitted not later than January 31, 2010. The authors are requested to indicate their preferred type of presentation (oral: 15 min. plus 5 min. of discussion, or poster), the corresponding conference topic as well as 3 potential referees for their paper.

Conference Proceedings
The proceedings of PSE 2010 will be published in two different ways:
• As non-refereed publication of the conference presentations on CD-ROM, to be distributed 2–4 weeks after the conference.
• As conference proceedings with peer-reviewed papers, to be published by Elsevier as a supplemental special issue of Surface and Coatings Technology (distribution in spring/summer of 2011).

In this way, we are able to offer quick information about the state-of-the-art in plasma surface engineering, as well as a collection of high-quality papers published in a renowned scientific journal.

Conference Language
The official conference language is English. All oral or poster presentations, as well as abstracts and manuscripts are requested in English.

Venue
The location of the Twelfth International Conference on Plasma Surface Engineering – PSE 2010 is again the Congress Center of Garmisch-Partenkirchen. Situated 60 miles (95 km) south of Munich, Garmisch-Partenkirchen is a well-known resort in the foothills of the Bavarian Alps, nesting in an enchanting landscape of mountains, lakes, baroque churches, and famous castles of the Bavarian Kings. It is easy to reach by using train from Munich Main Station and Munich International Airport. Access by car via highway A95 from Munich to Garmisch-Partenkirchen is also straightforward.

As Garmisch-Partenkirchen and Upper Bavaria are very popular in fall, an early hotel reservation is strongly recommended. Please make your reservation with your registration.

Information and Registration
Detailed information are available on the conference website. If you wish to receive the PSE 2010 newsletter, please register for it on the conference website. Registration is only possible via the conference website, being open after March 1, 2010.

Important Dates for the Conference
Confirmation of accepted abstracts April 2010
Conference program available on the conference website June 1, 2010
Early Registration up to (only via internet, www.pse2010.net) July 1, 2010
Manuscript submission deadline (only via internet, www.pse2010.net) September 15, 2010

Conference Schedule and Calendar
The technical program of the conference, including the plenary lectures, oral and poster sessions will be arranged from Monday to Friday. The official opening takes place on Monday, September 13, 2010 at 9 am.

Local Organizing Committee
G. Bräuer, Braunschweig (GER)
E. Schultheiß, Dresden (GER)
F. Berger, Dresden (GER)
L. von Loyen, Dresden (GER)
B. Rauchsaebisch, Leipzig (GER)

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First Circular and Call for Papers
September 13–17, 2010
Garmisch-Partenkirchen
(Germany)

Organized by:
European Joint Committee on Plasma and Ion Surface Engineering (EJC/PISE)
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K.-T. Vie, Braunschweig (GER)
Twelfth International Conference on Plasma Surface Engineering

Scope of the PSE Conference:
Fundamentals and applications of plasma and ion beam techniques in surface engineering

The Twelfth International Conference on Plasma Surface Engineering will be held in Garmisch-Partenkirchen, Germany, from Monday, September 13 to Friday, September 17, 2010. The biennial PSE conference series is organized by the European Joint Committee on Plasma and Ion Surface Engineering.

With a continuously growing interest in the preceding PSE events, with more than 700 participants from all over the world in 2008, PSE is a well-established and leading forum in the field of plasma as well as ion- and particle-beam assisted surface modification and thin film technologies. PSE provides an opportunity to present recent progress in research and development and industrial applications. Its topics span a wide range from fundamentals such as e.g. process modeling and simulation or thin films, through empirical studies which e.g. establish the relationships between process parameters and the structural and functional properties of modified surfaces and thin films, towards the application in industrial production. With numerous industrial exhibitors and an exceptionally large fraction of participants from industry (more than 30% in 2008), a special feature of PSE is the intimate and vivid interaction between those being involved in basic research and those who have to meet the rapidly increasing demands in industrial production.

Conference Topics

1. Plasmas for surface engineering

   Advanced plasma and ion sources and technologies
   Pulsed plasmas
   Atmospheric plasma sources
   New ion and plasma sources
   Plasma diagnostics/ process control

   Plasma treatment and cleaning
   - Plasma-surface interaction
   - Plasma treatment of polymers
   - Plasma sterilization
   - Bio-functionalization
   - Ion and laser treatment

   2. Deposition technologies
   PVD
   - Magnetron sputtering
   - Vacuum arc deposition
   - Plasma-activated evaporation
   PECVD
   - Low pressure plasma CVD
   - Atmospheric pressure plasma CVD

   Plasma diffusion treatment
   - Plasma CVD processing
   - Hybrid and duplex processes

   Plasma spraying Ion-assisted deposition
   - Ion beam deposition

   Coating of special geometries
   - Large area deposition
   - Coating of inner walls and trenches, holes, ...

   3. Films and coatings
   Nanofilms
   - Ultrathin films
   - Nanostructured films

   Protective and tribological coatings
   - Tribological coatings
   - Corrosion-resistant coatings

   Functional coatings
   - Optical coatings
   - Films for photovoltaics
   - Films with special optical properties

   4. Properties and characterization of films and modified surfaces
   - Structure and composition
   - Mechanical properties
   - Optical properties
   - Plasmas diagnostics/ process control
   - Plasma modelling
   - Surface cleaning/plasma etching
   - Geometrical characterization (thickness, roughness)
   - Internal stresses
   - Electrical and magnetic properties

   Contributed papers from universities, institutes and espe-
   cially from industry remain welcome. Recent developments and progress in the above listed areas will be reviewed at invited talks. In addition, the individual sessions will be introduced by a number of keynote speakers.

   Sunday, September 12, 2010
   Tutorial 1: Fundamentals and Trends of Plasma Surface Processing
   The tutorial will cover the fundamentals of selected modern plasma processes and their applications in research and industry. Lectures will be given by internationally recognized senior scientists. The tutorial will be organized by the German PISE Group (AK Plasma) in cooperation with EFDS and chaired by Christian Oehr, Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik (IGB), Stuttgart (GER).

   Tutorial 2: Intellectual Property (IP)
   Intellectual Property (IP) protection is a critically important is-
   sue for companies in industry and in practice. This tutorial will focus on the protection of field of plasma surface engineering is essential. The tutorial will be chaired by Günter Bräuer, Fraunhofer-Institut für Schicht- und Oberflächenforschung, Braunschweig (GER).

   Tuesday, September 14, 2010 (afternoon)
   Workshop: Plasma Technologies for Reduction of CO₂ Emission
   Speakers from industrial companies will discuss the current challenges to utilize Plasma Technologies for reduction of CO₂ emission. The workshop will be organized by the German PISE Group (AK Plasma) in cooperation with the Society of Vacuum Coaters (SVC), and chaired by Roel Tietema, Hauzer Techno Coating BV, Venlo (NL).

   Wednesday, September 15 – 16, 2010
   Industrial Exhibition/Exhibition Evening
   An Industrial Exhibition, where manufacturing and service companies will find excellent opportunities to present their products and services, will again constitute an important part of the meeting. The exhibition area will be located in the main hall close to the conference desk. An Industrial Exhibition is planned on Tuesday. Interested companies and organizations, please contact the conference manage-
   ment as soon as possible.

   Thursday, September 16, 2010
   Tutorial 3 (SVC): The Practice of Reactive Sputtering
   This Tutorial on the field of Plasma Surface Processing as soon as possible.
   - Printers Diese tickets be on CD ROM, the exhibition, the welcome party as well as the Industrial Evening.
   - Accompanying persons 80 *

   The fee includes the welcome party, the Industrial Evening as well as the Bavarian Evening.

   Printed Conference Proceedings 210 € (plus shipping costs)
   To be ordered separately.

   All stated conference and tutorial fees are free of VAT.
   Prices marked with * include German VAT.

   In case of your registration cancellation, a cancellation fee of EUR 100 will be charged before June 10, 2010. After that date, a refund is not possible.

   Conference Fees

   Regular registration fee
   - Regular fee 480 €
   - Regular fee for students 220 €
   - Tutorial fee 200 €
   - Regular fee for students 100 €
   - Regular fee 250 €
   - Two-Day Ticket 290 €
   - Two-Day Ticket for students 120 €
   - Bavarian Evening 60 €
   - Participation at the Bavarian Evening is only possible with this additional ticket.

   The two-day registration is only valid for two eligible confer-
   ence days including the delegate bag with all information about the exhibition, the welcome party as well as the Industrial Evening.

   Tutorials 1 and 2 on Sunday, Sept 12, 2010
   - Regular fee 200 €
   - Regular fee for students 100 €
   - Tutorial 3 (SVC) on Thursday, Sept. 16, 2010
   - Regular fee, for everyone 250 €
   - Two-Day Ticket 290 €
   - Two-Day Ticket for students 120 €
   - Bavarian Evening 60 €
   - Participation at the Bavarian Evening is only possible with this additional ticket.
   - Accompanying persons 80 €

   The fees include the welcome party, the Industrial Evening as well as the Bavarian Evening.

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