

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 conventional 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, plus 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, nestling in an enchanting landscape of mountains, lakes, villages, 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.

Social Program

Conference participants and accompanying persons are invited to join the welcome party on Sunday evening, September 12, 2010 and the Industrial Evening on Tuesday, September 14, 2010. Following the tradition of the previous PSE conferences, the conference dinner will be held as a „Bavarian Evening“ on Wednesday, September 15, 2010.

Accommodation

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

Abstract submission deadline (only via internet, www.pse2010.net)	January 31, 2010
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.

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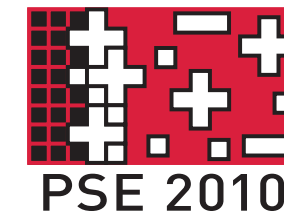
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K.-T. Rie, Braunschweig (GER)

Twelfth International Conference on Plasma Surface Engineering

Conference and Exhibition

First Circular and Call for Papers



September 13–17, 2010
Garmisch-Partenkirchen
(Germany)

www.pse2010.net

Organized by:
European Joint Committee
on Plasma and Ion Surface Engineering
(EJC/PISE)

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Twelfth International Conference on Plasma Surface Engineering

PSE 2010

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 modelling and simulation or thin physics, through empirical studies which e.g. establish the relationships between process parameters and the structural and functional properties of modified surfaces and/or 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
- HIPIMS
- Ion implantation/Plasma immersion ion implantation
- Industrial device technology

Properties of technological plasmas

- Plasma diagnostics/process control
- Plasma modelling

Plasma treatment and cleaning

- Plasma-surface interaction
- Plasma sterilization and bio-functionalization
- Ion and laser treatment
- Plasma treatment of polymers
- Surface cleaning/plasma etching

2. Deposition technologies

PVD

- Magnetron sputtering
- Plasma-activated evaporation
- Vacuum arc deposition

PECVD

- Low pressure plasma CVD
- Atmospheric pressure plasma CVD
- Plasma polymerization

Plasma diffusion treatment

- Plasma nitriding/carburizing
- Hybrid and duplex processes

Plasma spraying ion-assisted deposition

- Ion beam deposition
- Ion beam sputtering

Coating of special geometries

- Large area deposition
- Coating of inner walls and complex geometries (trenches, holes, ...)

3. Films and coatings

Nano films

- Ultrathin films
- Nanocomposite films
- Multilayer films
- Nanostructurization and nanoparticles

Protective and tribological coatings

- Tribological coatings
- Corrosion-resistant coatings
- Carbon-based films
- Barrier coatings

Functional coatings

- Optical coatings
- Films for photovoltaics
- Films with special magnetic functions
- Conductive and photocatalytic oxides
- Films with special electrical functions
- Films for biomedical applications

4. Properties and characterization of films and modified surfaces

- Structure and composition
- Mechanical properties
- Optical properties
- Geometrical characterization (thickness, roughness)
- Internal stresses
- Electrical and magnetic properties

Contributed papers from universities, institutes and especially from industry are 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 issue for research and industry. Strong and effective IP protection on the field of plasma surface engineering is essential. The tutorial will be chaired by Günter Bräuer, Fraunhofer-Institut für Schicht- und Oberflächentechnik, Braunschweig (GER).

Tuesday, September 14, 2010 (afternoon)

Workshop: Plasma Technologies for Reduction of CO₂ Emission

Speakers from industrial companies will discuss the current challenge 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).

Tuesday/Wednesday, September 14 – 15, 2010

Industrial Exhibition/Exhibition Evening

An Industrial Exhibition, where manufacturing and service companies will find excellent opportunities to present their products and announce their 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 Evening is planned on Tuesday. Interested companies and organizations, please contact the conference management as soon as possible.

Thursday, September 16, 2010

Tutorial 3 (SVC): The Practice of Reactive Sputtering

This Society of Vacuum Coaters Tutorial, in cooperation with EFDS, will be presented by Bill Sproul, Reactive Sputtering, Inc., San Marcos (USA).

Job Placement Center/Technology Placement Center

At PSE 2010 a „Job Placement Center“ will be set up as a contact point for job seekers and organizations recruiting new personnel. The „Technology Placement Center“ will act as an exchange forum for scientific/technological queries and will support cooperative ventures and proposals for problem-solving.

Conference Fees

Regular registration fee	480 €
Registration/payment after July 1, 2010	530 €

The registration fee includes the delegate bag with all information about the conference, the conference proceedings on CD ROM, the exhibition, the welcome party as well as the Industrial Evening. It does not include the Tutorials and the Bavarian Evening.

Regular registration fee for students	220 €
Registration/payment after July 1, 2010	250 €

The registration fee includes the delegate bag with all information about the conference, the exhibition, the welcome party as well as the Industrial Evening. It does not include the Tutorials and the Bavarian Evening.

Two-Day Ticket	290 €
Two-Day Ticket for students	120 €

The two-day registration is only valid for two eligible conference days including the delegate bag with all information about the conference, 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 €
These tickets are <i>only</i> valid for the particular Tutorials ordered.	

Bavarian Evening	60 €*
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Participation at the Bavarian Evening is only possible with this additional ticket.

Accompanying persons	80 €
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The fee includes the welcome party, the Industrial Evening as well as the Bavarian Evening.

Printed Conference Proceedings (plus shipping costs)	210 €*
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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.