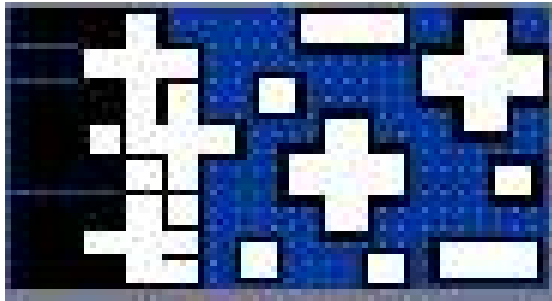


**Fifth Asian-European International Conference
on Plasma Surface Engineering
And
Production Exhibition**

Second Circular and Call for Papers



AEPSE 2005

<http://www.aepse2005.mse.tsinghua.edu.cn>

September 12 – 16, 2005

Qingdao city, China

Organized and Sponsored by

Tsinghua University

Shandong University

Qingdao University of Science and Technology

National Advanced Materials Committee of China

National Natural Science Foundation of China

The European Joint Committee

on Plasma and Ion Surface Engineering

Scope of AEPSE 2005

The fifth Asian-European International Conference on Plasma Surface Engineering (AEPSE 2005) will be held from Monday, September 12 to Friday, September 16, 2005, in Qingdao city, China. The conference is organized and sponsored by Tsinghua University, Shandong University, Qingdao University of Science and Technology, National Advanced Materials Committee of China, National Natural Science Foundation of China and the European Joint Committee on Plasma and Ion Surface Engineering.

Rapid progress on coatings and films and functional surface treatments by utilizing plasma and energetic beam has been made in research and development for various industrial applications in recent years. It is the aim of the AEPSE conference to provide an open forum to discuss the state of the art and a perspective of scientific and technological achievement in plasma generation, diagnostics, films and coating materials, advanced plasma processing, functional surface treatment and applications.

In addition to the conference, the industrial plasma technology exhibition will be organized during the conference. The industry exhibition will cover broad industrial sectors, and can be of general interest for researchers in academia and industry. The perspective of plasma technology development and application for next generation nano-technology, information and telecommunication technology, bio-technology, energy and environmental technology will also be addressed both in the conference and in the exhibition.

Conference Topics

1. Tribological & protective coatings
 - Hard and super hard coatings
 - Nano-structured films
 - Lubrication coatings
 - Corrosion and oxidation resistant coatings
 - Thermal barrier coatings
 - Barrier coatings
2. Electronic functional coatings
 - memory application films

- Flat panel display films
 - Optical films
 - magnetic films
 - Battery films
 - Nano-structured thin films
3. Plasma processing and surface treatment
- PVD, PACVD and hybrid processes
 - Thermal plasma processing
 - Plasma etching and cleaning
 - Atmospheric plasma processing
 - Plasma diffusion treatments
 - Ion beam and laser processing
 - Plasma polymerization
 - Electrolyte plasma treatment
 - Plasma micro- and nano-fabrication
 - Plasma sterilization .
4. Advanced plasma sources and diagnostics
- Modeling and simulation
 - PVD sources
 - Thermal and non-thermal plasma sources
 - Plasma diagnostics
 - Ion sources
 - Etching sources
 - Atmospheric plasma sources
 - Plasma light sources .
5. Thin film and coating modeling and analysis
- Nucleation and growth modeling
 - Stress and failure analysis
 - Structural analysis
 - Physical and chemical analysis
6. Industrial applications
- Tribological applications
 - Electronic and optical applications
 - Environmental applications
 - Bio and medical applications
 - Memory and display applications
 - Barrier applications

Conference time: Sep. 12 (Monday) – Sep.16 (Friday), 2005
Presentation of papers

Tentative invited speakers are as follows:

- * Prof. C.-P. Klages, "Atmospheric Pressure Surface Technology", IOT, TU-Braunschweig, Germany
- * Prof. Papken Eh. Hovsepian, "Industrial application of plasma processing", Sheffield Hallam University, United Kingdom
- * Dr. Tomas Krug, "Industrial application of plasma processing", Hauzer, Germany,
- * Dr. Arutiun Ehiasarian, "Novel High Impulse Magnetron Sputtering Technology", Sheffield Hallam University, United Kingdom
- * Dr. Nuno Carvalho, "Structural and mechanical characterization of multilayer DLC coatings", Bekaert - Belgium
- * Dr. Miran Mozetic, "Characterization of reactive plasma with catalytic probes", Jozef Stefan Institute, Slovenia
- * Dr. Adriana Creatore, "Plasma-polymer interaction: studying in situ the transition layer from polymer to anorganic", Eindhoven University of Technology, The Netherlands
- * Dr. Peter Vankan, "High vibrationally excited H₂ molecular in an expanding H₂ plasma", Eindhoven University of Technology, The Netherlands
- * Dr. Ulrich Kogelschatz, "Atmospheric pressure plasma science & processing", ABB Research, Switzerland
- * Dr. Francis Gitzhofer, "Combinatorial inorganic chemistry by thermal plasma processing", University of Sherbrooke, Canada
- * Dr. Pietro Favia, "Plasma processing in biomaterials science", University of Bari, Italy
- * Dr. Martina Lattemann, "Thin film growth on 3-dimensional substrates using highly ionized PVD", Linköping University, Sweden
- * Prof. J. Vlcek: "Reactive magnetron sputtering of new quaternary Si-B-C-N films and their properties", University of West Bohemia, Czech Republic
- * Prof. Y. Shigesato: "Ultra-high rate deposition of photocatalytic TiO₂ films by reactive magnetron sputtering", Aoyama Gakuin University, Japan

- * Prof. Masaru Hori, "Radical-Controlled Plasma Nano Processes", Nagoya University, Nagoya, Japan
- * Prof. Yuichi Setsuhara, "Large-Area Deposition by Novel Inductively-Coupled- Plasma Source", Joining and Welding Research Institute, Osaka University, Osaka, Japan
- * Prof. Osamu Takai, "Applications of Patterned Ultra-Hydrophilic and Ultra-Hydrophobic Areas Prepared by Plasma-Enhanced CVD and VUV Lithography", EcoTopia Science Institute, Nagoya University,
- * Prof. Chisato Niikura, "Preparation of High-Quality Nanocrystalline Silicon Films by Novel Plasma-Enhanced CVD", National Institute for Materials Science, Tsukuba, Japan
- * Prof. Hiroshi Fujiyama, "Pulsed Sputter-Coating of Inside Wall of Narrow Tube by the 2nd Harmonic ECR Plasmas", Graduate School of Engineering, Nagasaki University, Nagasaki, Japan
- * Dr. M. Kambara, "Super high rate epitaxial deposition of Si by meso-plasma CVD", The Univ. of Tokyo, Japan.
- * Prof. Masaharu Shiratani, "Si Thin Films of Second and Third Generation Photovoltaics for 2020 and beyond", Graduate School of Information Science and Electrical Engineering, Kyushu University, Fukuoka, Japan
- * Prof. Masayuki Kuzuya, "Development of New Drug Delivery System by Plasma Surface Treatments", Gifu Pharmaceutical University, Gifu, Japan
- * Prof. Kazuo Terashima, "Applications of Microplasma", Graduate School of Frontier Sciences, The University of Tokyo, Kashiwa, Japan
- * Prof. Hong Young Chang, "Advanced plasma source for semiconductor and flat panel display", Korea Advanced Institute of Science and Technology, Korea
- * Prof. Soo G. Oh, "Plasma-material interface phenomena by advanced plasma diagnostics", Ajou University, Korea
- * Prof. Jin Hyo Boo, "Functional metallization on polymer by hybrid plasma processing", Sungkyunkwan University, Korea
- * Dr. Jong Won Shon, "Next generation plasma systems for nano processing", Ju-Sung Engineering Co., Korea
- * Prof. Jeon G. Han, "Conductive nano structure carbon film synthesis by pulsed magnetron sputtering", Sungkyunkwan University, Korea

- * Dr. Sik C. Kwon, “Environmental friendly plasma coating for replacing electro-plating “, Korea Institute of Metals and Machinery, Korea
- * Prof. I-S. Lee, “Industrial application of ion-beam assisted deposition”, Yonsei University, Korea
- * Dr. Subroto Mukherjee, “Plasma surface engineering in India”, Institute for Plasma Research, India
- * Dr. Ronghua Wei, “High intensity plasma Ion nitriding (HIPIN) of metallic materials “, Southwest Research Institute, USA
- * Prof. L.S. Wen, “Plasma surface engineering in China”, Institute of Metal Research, China
- * Prof. Y.K. Pu, “New methods in plasma diagnostics”, Tsinghua University, China

Industrial Plasma Technology Exhibition

The exhibition where manufacturing and service companies find excellent opportunities to present their products and announce their services, will constitute an important part of conference located in the Shangri-La Hotel, Qingdao. Interested companies and organizations should contact the conference secretary, **Dr. X.L. Wang**, xuelinwang@sdu.edu.cn, Fax:+ 86 - 531- 8565167 for the exhibition information.

Exhibition Time: Sep. 14 (Tuesday) – Sep. 15 (Thursday), 2005

- Exhibition on plasma technology and industrial applications
- Industry exhibition of industrial plasma technology and products
- Automobile and machinery industry
- Memory and electronic industry
- Optical and display industry
- Bio and medical industry
- Packaging and decorative industry
- Energy and environmental industry
- Illumination industry
- Nano and MEMS industry

Accommodation

Conference participants will be housed at Shangri-La Hotel and Beihai Hotel, Qingdao. Qingdao is very famous harbor in China. It is located in Shandong Province. It is best known for its German colonial relics and home to the famous Tsing Tao Brewery. With its satellite location in the commercial district, Shangri-La Hotel has excellent meeting facilities and unique dining options. Both the 5-star Shangri-La Hotel and the Beihai Hotel (3-star) are close to Qingdao's many stunning beaches, parks and museums.

Early hotel reservation is recommended. Since September is in the peak period of tourism in Qingdao, It will be very difficult to find hotel accommodations at a reasonable price by then. Thus for all participants, hotel reservation should be made by mail or facsimile directly to the conference secretary before July 15, 2005.

Hotel fee will be paid directly to the hotel when you arrive. Payment must be made in Euro dollars. You may pay the fee by money order of travelers checks or by credit card using American Express, GCB, VISA, Diners Club or Master Cards. Personal or company check will not be accepted.

Hotel address:

Shangri-La Hotel Qingdao. 9 Xiang Gang Zhong Road, Qingdao 266071, China

Beihai Hotel, Qingdao. 7 Xiang Gang Zhong Road, Qingdao 266071, China

Conference Fees

Regular registration fee (AEPSE) **€ 380**

Reduced fee for advanced Registration

before July 30, 2005 **€ 360**

The registration fee includes the conference proceedings, book of abstracts, welcome reception, 3 lunches (13-15th) and social evening (including banquet).

Student fee € 200

Reduced fee for advanced Registration

before July 30, 2005

€ 180

The student fee does not include the proceedings and the social evening

Early registration fee (€) should be paid by banktransfer to the following.

Intermediary Bank's Name: DEUTSCHE BANK AG, FRANKFURT GERMANY

Swift Code: DEUTDEFF

Account with Bank's Name: MERCHANTS BANK HEAD OFFICE, SHENZHEN, CHINA

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Message: TRANSFER TO BEIJING BRANCH, from__

* You must write your name in the Message, when you make the banktransfer.

Submission of Abstracts and Papers

Contributed papers for oral or poster presentation on the conference topics are solicited. The abstracts should be submitted with a minimum length of 300 words and a maximum length of one page. The title of the paper (please, use capitals) should be followed by a new line with the authors' name(s), affiliation and address, underlining the presenting author.

The abstracts have to be submitted via internet; please find more information at <http://www.aepse2005.mse.tsinghua.edu.cn>

The abstracts should be sent to the conference secretary not later than **June 30, 2005**. The authors are requested to indicate their preferred type of presentation (oral: 15 min and 5 min discussion, or poster) and the appropriate conference topic.

Conference Proceedings

The special proceedings of the conference will be published as a regular issue of **SURFACE & COATINGS TECHNOLOGY**. All

manuscripts will be refereed as customary for original papers. Authors will be informed about the length and the details for the preparation of the manuscripts upon acceptance of their contributions.

Conference Language

All abstracts and manuscripts must be submitted in English. The invited and contributed talks as well as the poster presentations will be given in English as the official conference language.

Important Dates for the Conference

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|--|-------------------------|
| Abstract and Exhibition application deadline | June 30, 2005 |
| Confirmation of acceptance | July 15, 2005 |
| Pre-registration deadline | August 10, 2005 |
| Hotel Registration | July 15, 2005 |
| Final conference circular with the preliminary program and further information (web announcement) | August 10, 2005 |
| Submission of manuscripts | till September 14, 2005 |

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Conference Secretary

Dr. X.D. Sun,

Tel: +86-10-62772977. 62773816, Fax: +86-10-62772850

E-mail: sunxiaodan@mail.tsinghua.edu.cn

Dr. X.L. Wang (exhibition)

Tel: +86-531-8364655; Fax: +86-531-8565167

E-mail: xuelinwang@sdu.edu.cn

<http://www.aepse2005.mse.tsinghua.edu.cn>

