

In The News

Conference/Workshop Information

High Technology Plasma Processes (HTPP9)

May 29-June 4, 2006, St. Petersburg, Russia

The conference addresses issues of interest to researchers, scientists, engineers, and experts in the field of plasma processes and their applications.

Conference topics include:

- Plasma sources and new electrical devices
- Electrical discharges in gas and liquids
- Plasma modeling on CFD codes
- On-line control and diagnostics
- Thermodynamic, transport properties, kinetic
- Lightening and sustainable development
- Surface treatments by plasma processes
- Plasma processes for new materials

(powder and nanopowder, clusters, fullerenes)

- Plasma techniques for gas turbines (aeronautic and space)
- Plasma deposits for renewable energy PV materials, SOFC, hydrogen products
- Plasma depollution and sterilization

Organizers:

- Ph. Rutberg, Institute for Electrophysics and Electric Power RAS, St. Petersburg, Russia
- M. Fedorov, State Polytechnic University of St. Petersburg, St. Petersburg, Russia
- J. Amouroux, University Pierre et Marie Curie/ENSCP, Paris, France
- P. Fauchais, University of Limoges, Limoges, France
- J. Van der Mullen, University of Eindhoven, Eindhoven, Netherlands

Contact: J. Amouroux; e-mail: jacques-amouroux@enscp.fr.

11th International Conferences on Modern Materials and Technologies (CIMTEC 2006)

June 4-9, 2006, Acireale, Sicily, Italy

As a major, long-standing event for the international materials community, CIMTEC 2006 will again gather together materials scientists, physicists, chemists, and engineers as well as experts in modern materials, from information technology to biological systems. Special attention will be devoted to the most relevant directions for materials research based on new theory and refined modeling strategies and on the ever-increasing opportunities offered by the continuous progress in nanoscience and nanotechnology.

CIMTEC 2006 will consist of the "11th International Ceramics Congress" and the "Fourth Forum on New Materials," each including a number of Sections, Special Sessions, Symposia and Conferences.

Contact: CIMTEC 2006, Faenza, Italy; tel: +0546 22461/664143; fax: +0546 664138/663362; e-mail: congress@technagroup.it; Web: www.cimtec-congress.org.

Recent Conferences

French Meeting between Manufacturers and Teachers in Surface Treatments

July 11-12, 2005, Siaugues St. Romain and Saint Chély d'Apcher, France

Every two years, two French trade associations in surface treatments and coatings, SITS (organization of the equipment and product manufacturers) and SATS

(organization of the workshops and industrial companies in surface treatment), organize a two-day meeting between the French teachers and manufacturers in the area of the surface treatments and coatings. The objective of the meeting is to explain to the teachers the expectations of the manufacturers and discuss the innovations and changes in the field.

This year, the meeting (the fifth) began with the visit of the PEM Company (<http://www.pem.fr>) at Siaugues St. Romain, a small town 350 km southeast

of Paris. The company employs 420 workers and has 27 production lines, an in-house design office, and a development and research department. The company specializes in continuous surface treatments, which are also referred to as reel-to-reel treatments, for applications in electric, electronic, and automotive equipments.

After the visit, those taking part in the meeting went to a technical school at Saint Chély d'Apcher for presentations and discussion about the replacement of



PEM Company "workshop"



"Practice training room" of the technical school at Saint Chély d'Apcher, France

hard and decorative chromium as well as the substitution of paints with solvent by paints in powder form.

The second day began by the visit to the "surface treatment practice room" of the technical school. Then, the discussion turned to the difficulties in promoting the surface treatment profession to high school students and to promoting

the various school diplomas (operator, technician, and engineer) to the companies.

As a conclusion, participants decided to start a survey of the age and training level of the employees of the surface treatment companies as well as the employers' expectations for the education and experience of their prospective employees.

Euromat 2005

September 8-12, 2005, Prague, Czech Republic

This conference is organized every two years by FEMS (Federation of European Materials Societies) in various places in Europe. The organization of locations was unusual for this type of conferences—the regular sessions, starting just before lunch, were held in the building of Czech Technical University, School of Architecture. This location is about 10 minutes from the center of Prague by metro. However, plenary sessions were held (Tuesday through Thursday) in the morning in the middle of Prague in the historical building "Narodni dum," which is often used for cultural events—balls, dance classes, and concerts. The transportation between these places is quite convenient; they are connected by Prague metro system, an efficient form of transportation.

The conference consisted of a number of symposia. This year included four in the coatings and surface engineering area. Of prime interest to readers of this journal was the symposium D63, "Thick Coatings for Thermal, Environmental, and Wear protection." This symposium spanned over two days, Monday and Tuesday.

Monday sessions began with a keynote lecture given by K. Nassenstein on "Thermal Spray Coatings for Tribological Applications and Corrosion Protection." This lecture was followed by various lectures related to both industrial applications (e.g., G. Barbezat, "Thermal Spray Coatings for Tribological Applications in the Automotive Industry") as well as process understanding (e.g., M. Delque, "Tribological Behavior of Al_2O_3 Reinforced Cu-Based Composites Obtained by Air Plasma Spraying"). Further presentations also covered new or improved manufacturing techniques (e.g., J. Kawakita, "Dense Titanium Coating by an Improved Thermal Spray Process").

Tuesday started with two plenary lectures related to aerospace industry materials problems. The first lecture was presented by N.E. Glover, Imperial College, London, U.K. His lecture entitled "Sustainable Air Travel: New Challenges for Aeroengine Materials" reviewed the present and future history of materials used in jet engines, mainly manufactured by Rolls-Royce, U.K. The second plenary



Armelle Vardelle presenting keynote lecture



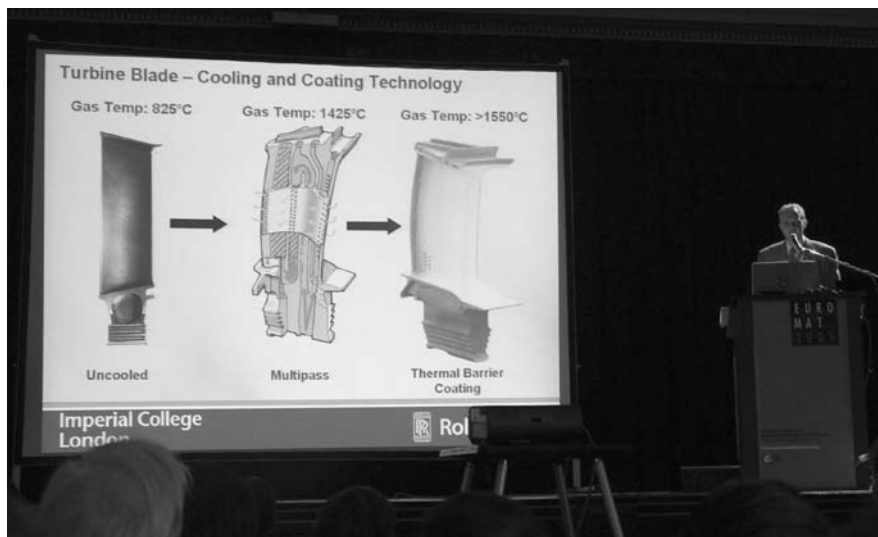
Christopher C. Berndt presenting keynote lecture



Christian Coddet chairing the sessions on Monday

talk by K. Keller from Airbus S.A.S, Toulouse, France, was a unique opportunity to get insight into materials selection for new aircraft parts.

The Coatings symposium continued with sessions on Simulation and Process Diagnostics of Thermal Spray, Advanced Thermal Spray Process Technologies, and Thermal Barrier Coatings. The TBC symposium was initiated by Chris Berndt with a keynote lecture "Thermal Barrier Coatings," followed by Z. Prochazka ("Impact of Input Parameters on Thermal Diffusivity of Plasma Sprayed Coat-



N.E. Glover giving his Tuesday plenary lecture



Historical building of Narodni dum where plenary lectures took place

ings"), Jan Ilavsky ("Microstructure Characterization of YSZ EBPVD Deposits by Anisotropic Small-Angle Scattering"), and Ghislain Montavon ("Structural Evolution and Mechanical Properties Modification of MELTPRO (In situ Remelted) Processed Thermal Barrier Coatings during Thermal Shock").

The TBC sessions continued with a lecture given by Wolfram Beele ("HS-PVD Thermal Barrier Coatings") presenting a novel method of high-speed EBPVD (HS-EBPVD). This method combines

features from plasma spraying and EBPVD technology. Further talks included lectures on erosion and wear of aged plasma sprayed TBCs (by R.G. Wellman), environmental and thermal protection of gamma-TiAl alloys by M. Frohlich, and TBC failure mechanisms by A. Jung.

In general, this conference was a valuable opportunity to review current status of coatings and gain understanding of their industrial applications. All of this was set in framework of one of the most beautiful cities in the World—historical Prague.