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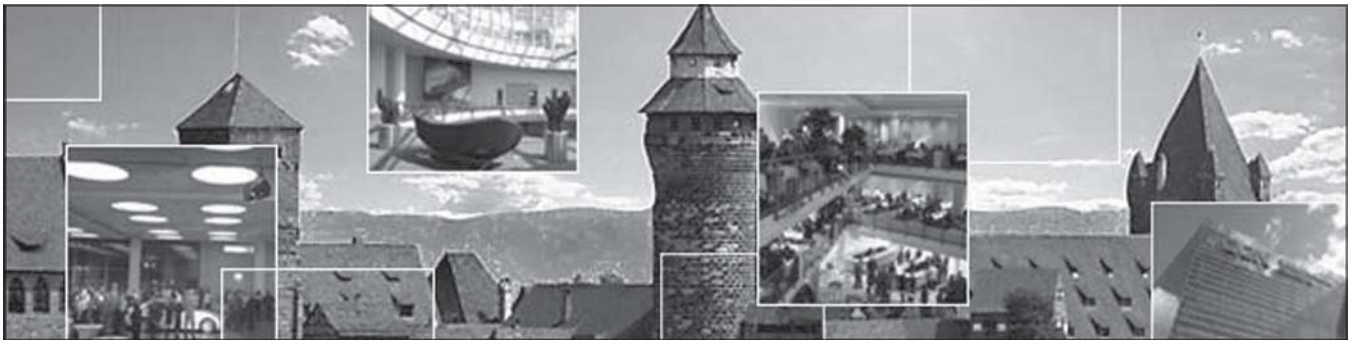
In The News

Conference and Workshop Information



Euromat 2007, European Congress and Exhibition on Advanced Materials and Processes

Sept 10-13, 2007, Nürnberg, Germany

Euromat, 2007, the tenth in the biannual Euromat meeting series, organized by Federation of European Materials Societies (co-organized by DGM, DVM, and PTM, and cosponsored by TMS, The Minerals, Metals & Materials Society), will be held in Nürnberg, Germany, Sept 10-13, 2007. This prime European materials conference and exhibition traditionally provides an excellent platform for presentation of research in various thin/thick film areas, including thermal spray and related techniques. The topic area *C5 Coatings and Surface Engineering* (see description below) contains two symposia of prime interest for *JTST* readers—*C52 Thick Coating Developments and Technology* symposium and *C51 Thin Film Technology* symposium (see description below).

Very good news for *JTST* readership is that selected papers submitted to the symposium *C52 Thick Coating Developments and Technology* will be published in the *Journal of Thermal Spray Technology* and selected manuscripts submitted to *C51 Thin Film Technology* will be published in *Advanced Engineering Materials.* Submission of the papers before the conference date is required for publication.

Deadline for submission of abstracts is Jan 31, 2007. Other important dates are listed on the website (www.euromat2007.fems.org).

Topic Area C5 Coatings and Surface Engineering

Organized by K. Bobzin, Rheinisch-Westfälische Technische Hochschule Aachen (Germany). This conference topic focuses on surface protection by means of coatings and surface treatment. Surface engineering is the key technology for high-performance machine or engine parts due to the limitation of machine and engine performance by bulk material properties in many industrial applications. Coatings and surface treatment are applied on bulk materials in components and tools to fulfill properties like wear resistance and friction reduction, surface protection against corrosion including high-temperature corrosion and thermal protection by thermal barrier coatings. The symposia of this topic are a forum for scientists, engineers, and users from research and industry in the areas of thin film and coating technology, thick coating technology and electro- and electroless plating. Contributions about new developments in innovative material concepts, sophisticated coating processes and surface treatments are solicited in this topic. Process diagnostic and simulation as modern tools for process development, control, and optimization are intended to be represented in this conference topic. Furthermore, new processes, process adaptation, and innovative process control can lead to an extension of the range of available coating materials and of coating-substrate combinations. Contemporary research work in the field of surface engineering is not only related to processes and coating materials, but also to the structure of coatings to gain specific properties. Examples are multilayer and graded film structures as well as nanostructured coatings. A special symposium in this topic is attended to innovative industrial applications of coatings and surface engineering.

C52 Thick Coating Developments and Technology Symposium

Chairperson: K. Möhwald, Universität Hannover, Garbsen (Germany); Co-Chairperson: C. Coddet, Université de Technologie de Belfort-Montbéliard (France). This symposium focuses on the field of surface protective coatings produced by means of thermal spray technology, EB-PVD-technology, related, and hybrid processes. This includes many valuable aspects for the field of mechanical engineering such as coatings with wear-resistance properties, surface protection against corrosion including high-temperature corrosion as well as thermal barrier coatings. Due to the increasing significance of tribological properties, friction reduction also becomes more and more important. The latest developments

in coating technologies cover the utilization of new material concepts as well as the development of sophisticated coating processes. Considering even only modifications of coating materials as well as the development of multilayer/graded film structures, these technologies show a large innovative potential. Contemporary research work also puts coating technologies forward into the "nano-age," with a widespread and not yet fully overseen range of new mechanical properties in view of both nanostructured coatings and nanoscaled spray materials. Besides materials and the related processes, this symposium will also feature process diagnostics and simulation as future instruments for process optimization and control.

C51 Thin Film Technology Symposium

Chairperson R. Nickel Rheinisch-Westfälische Technische Hochschule Aachen (Germany); Co-Chairperson A. Matthews, University of Sheffield (United Kingdom). This symposium is intended to be a stage for researchers and industry working in different fields of the thin film technology sector. Technologies such as physical vapor deposition (PVD), chemical vapor deposition (CVD), sol-gel deposition, laser alloying, and other related processes are focused on in this symposium. Contributions are invited that address questions related to process control and optimization, process diagnostics, and characterization as well as in situ process monitoring. Furthermore, the symposium will focus on a wide range of coating and thin film research. This includes the characterization of coating structures and properties related to functional requirements such as tribological properties, corrosion and oxidation protection, wear resistance, thermal protection, and other specific requirements. Specific topics in this symposium are also related to predictive modeling and simulation of processes and coating characteristics and to experimental investigations with the aim to correlate between process, process parameters, thin film micro- and nanostructure and coating characteristics.

Contact: www.euromat2007.fems.org.

Recent Conferences

High Technology Plasma Processes Conference

May 29 to June 4, 2006, Saint Petersburg, Russia

The Ninth High Technology Plasma Processes (HTPP9) conference took place this spring (May 29 to June 4, 2006) in Saint Petersburg, Russia.

The beautiful Palace of Scientists (Dvortsovaya emb. 28) and its astonishing architecture (the Palace of Scientists is the former House of Grand Duke Nicholas), located on the Neva shores a few blocks from the Hermitage palace, welcomed 180 participants from about 20 countries for five days of discussions and informal meetings in alphabetical order: Belarus, Belgium, Bulgaria, Canada, Czech Republic, France, Germany, Greece, Israel, Italy, Japan, Lithuania, Portugal, Russia, Spain, Switzerland, The Netherlands, United Kingdom, and United States.

The conference, which presented about 60 oral presentations and forty posters dedicated to the science and technology of plasmas, was organized by Professors Amouroux (ENSCP, Paris, France), Fauchais (Faculty of Sciences, Limoges, France), Van der Mullen (University of Technology, Eindhoven, The Netherlands), Dresvin (University of Technology, Saint Petersburg, Russia), Fedorov (State Polytechnic University, Saint Petersburg, Russia), and Academician Rutberg (Russian Academy of Science, Saint Petersburg, Russia) under the auspices of the European Material Research Society (E-MRS) and the Russian Academy of Science (RAS). Technical and financial support was provided by the Technology University of Eindhoven and Philips Lighting (The Netherlands), the Institute for Electrophysics and Electric Power (RAS, Russia), and the University Pierre and Marie Curie (France).

The objective of the organizers, as during the previous conferences, was to bring together scientists and industrial researchers working in different plasma-related fields to share their experiences, the most recent results, and forthcoming challenges. As intense debates between the participants indicated, this goal was achieved.

The most recent advances in plasma physics and plasma chemistry, plasma lighting, materials science, surface treatments, and so forth were passionately debated during these five days. In particular, the recent advances in the applications of nonequilibrium plasmas in medicine were marvelously illustrated by Prof. Fridman (Drexel University, Philadelphia, PA) about how to treat, for example, skin diseases. Applications of plasmas in waste treatments and pollution remediation were competently presented by Academician Rutberg and Prof. Amouroux. All of these examples gained wide attention of participants.

A superb and unforgettable banquet organized by the Russian hosts was the occasion to salute, thank, and acknowledge the organizers and several leaders in this field. All of them emphasized the importance of support and encouragement of the activities of young researchers for the future of this field. Six of these young and promising scientists were presented during the banquet with certificates of merit for the quality and importance of their work. The recipients were, in alphabetical order:

- **Dr. J. Cedelle** (Faculty of Sciences, Limoges, France): Thermal contact resistance study at interface splat/substrate in plasma sprayed coating formation

The Hermitage Palace

Saint-Petersburg, host of the HTPP9 conference

- **Dr. P.P. Ivanov** (Joint Institute for High Temperatures, Russian Academy of Science, Moscow, Russia): Quasi-one-dimensional approach to the falling film reactor for the plasma based melting reduction of iron ore
- **Dr. T. Kavka** (Institute for Plasma Physics, Prague, Czech Republic): Analysis of plasma jets generated in gas and gas-water torches
- **Dr. N. Leone** (ENSCP, Paris, France): Advances in the detection of chemical and biological pollutants by laser-induced breakdown spectroscopy
- **Dr. M.E. Pinchuk** (Institute of Electrophysics and Electric Power, Russian Academy of Science, Saint-Petersburg, Russia): Radial oscillations of the discharge channel in a superhigh dense gas
- **Dr. E. Wagenaars** (Eindhoven University of Technology, Eindhoven, The Netherlands): Measuring E fields with laser-induced fluorescence

The last day, participants had the unique opportunity to visit the laboratory of Academician Rutberg located at the Institute for Electrophysics and Electric Power (RAS, Russia). All of them noted the very original research that is performed by his team.

Beside the conference, many took the opportunity to experience the famous white nights, which occur during this period of the year (sunshine till about midnight with sunrise at two in the morning), visited many parts of the beautiful city of Saint Petersburg, and enjoyed the social program that was offered by the Russian hosts.

The Tenth High Temperature Plasma Processes will take place in 2008, very likely in Greece (this will be confirmed in the coming months).

Organizers invite all interested colleagues to participate in the organization of this event. For further information, please contact Professors Amouroux (jacques-amouroux@enscp.fr) or Van der Mullen (joost@etpserver.phys.tue.nl).