

# Conference Report

## Global Symposium on HVOF Coatings

24 March 1997, the Hyatt Regency, San Francisco Burlingame, CA. The Third Global Symposium on HVOF Coatings will focus on HVOF coatings as a replacement for Electrodeposited Chrome for aircraft applications. The symposium is sponsored by The University of Tulsa, Mechanical Engineering Department, and Southwest Aeroservice, Inc., and will be held in conjunction with the AESF Aerospace/Airline Plating and Metal Finishing Forum and Exposition. The symposium will be held on Monday, 24 March 1997, and the AESF Forum will follow beginning Tuesday, 25 March.

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## Thermal Spray Coatings '97

8-10 April 1997, Airport Marriott Hotel, Atlanta, GA. Gorham's fourth international conference and business forum will be chaired by Frank Longo (President, Longo Associates). The keynote speakers are Paul Kammer (Senior Executive, Eutectic+Castolin) and Mario Kyd (President, Sulzer Metco (U.S.) Inc.).

Subjects covered include: thermal spray technologies to replace chrome and chrome platings, new industrial applications for HVOF sprayed coatings, the level of thermal spray market penetration into nonaerospace, industrial applications, the outlook for thermal spray markets and applications for aircraft, marine and land-based turbines and the standardization of thermally sprayed coatings will be an issue for the industry.

**Contact:** Gorham Advanced Materials, P.O. Box 250, Gorham, ME 04038; tel: 207/892-5445; fax: 207/892-2210; e-mail: gorham@goradv.com; web site: <http://www.goradv.com>.

## 1997 Thermal Barrier Coatings Workshop

19-21 May 1997, Cincinnati, OH. Thermal barrier coatings continue to attract intense interest as one of few viable near-term technologies that can enable significant increases in component operating temperatures. The goal of the two-day workshop is to foster discussion on the topics of primary importance to advancing TBC technology.

Presentation topics include: heat transfer through coatings, theory and practice failure mechanisms, theory and practice characterization/test methods, and processes and coatings. Poster session topics include: novel processing, new coating compositions and structures, time-at-temperature effects, modeling, and so forth.

**Contact:** Dr. W. Brindley, NASA-Lewis Research Center, 2100 Brookpark Rd., Cleveland, OH 44135; tel: 216/433-3274; e-mail: william.j.brindley@LERC.NASA.gov.

## Canadian Materials Science Conference

17-20 June 1997, McGill University, Montreal, Quebec. The Ninth Canadian Materials Science Conference combines the 47th Canadian Metal Physics Conference and the 21st Canadian Metal Chemistry Conference. The goal of the conference is to bring together scientists and engineers who take a strong interest in all aspects of materials science and engineering. This year, in addition to the "traditional" topics of structure, properties, and characterization of materials, the organizers hope to highlight the importance of materials synthesis and processing. To this end, the "theme" of the Ninth CMSC conference is The Role of Processing in Materials Science. Topics include all stages of materials production, from mineral processing through extraction, i.e., hydrochemical and pyrometallurgical processing (including plasma processing), to molten material operations and castings.

A preconference workshop, entitled "Thin Films and Plasma Coatings" will be held immediately prior to the conference on 17 June. The objective of this workshop is to bring together researchers from industry, industrial laboratories, and universities to discuss advances in the area of coatings and films for the electronic, automobile, and magnetic recording industries, and other applications. Examples illustrating how structure of thin films and coatings is formed, and how it can be controlled during the manufacturing process, will be discussed. Research on the processing of coatings by electrodeposition, plasma spray, CVD, PVD, sol-gel, and other techniques will be presented. Finally, applications of coatings and films and the correlation between structure and all properties will be discussed.

For information, see the conference web site at: <http://www.minmet.mcgill.ca/cmssc/cir/htm>.

**Contact:** Department of Mining and Metallurgical Engineering, McGill University, 3450 University Street, Montreal, Quebec, Canada H3A 2A7; fax: 514/398-4492; tel: 514/398-4371 (Dr. Demopoulos), 514/398-1880 (Dr. Hasan), 514/398-4372 (Dr. Szpunar).

### **International Modification Conference**

8-10 September 1997, Paris, France. Topics include, applications of advanced coatings in aircraft, aerospace, automobile, marine and electronics industries; high temperature coatings; biomedical coatings; thermal spraying; laser processing; PVD and CVD processes; surface hardening processes; plasma-assisted and ion beam techniques; testing of coatings; wear behavior; adhesion of coatings; residual stresses; advanced surface investigation techniques; nondestructive testing and modeling.

Organizing committee: M. Jeandin (Ecole des Mines de Paris), T.S. Sudarshan (Materials Modification Inc.), and Ka Khor (Nanyang Technological University).

**Contact:** Conference Secretariat, Chantal Iannarelli, Congrès Scientifiques Services (C2S), 2 rue des Villarmains, BP 124-92210, Saint Cloud Cedex, France; tel: 33 147 71 90 04; fax: 33 147 71 90 05.

### **Crystallographic Texture and Mechanical Anisotropy**

1-5 September 1997, Hyannis, MA. The purpose of this conference is to bring together the topical research and development community from various laboratories around the world and explore all matters pertinent to the development and implication of crystallographic texture developments in Al and Ti-base alloys. The topics will include; texture evolution due to fabrication; mechanical and physical properties in relation to texture; modeling of texture anisotropy (grain size and precipitates); mechanics and microstructural issues; manufacturing methods to minimize/exploit texture and anisotropy; and component design and manufacturing issues related to texture of Al and Ti alloys.

The conference organizers are: K.V. Jata (Materials Development Branch), T.T.Bales (NASA Langley Research Center), and A.K. Vasudevan (Office of Naval Research).

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### **Engineering the Surface**

23-25 September 1997, Edinburgh, U.K. Six technical sessions are planned covering the manufacturing aspects and performance of environmental and thermal barrier coating systems. Topics include: new protective coating formulations offering improved protection; ceramic coating systems and thermal barrier coatings; new coating concepts, including functionally graded materials, diffusion barriers and multicomponent systems; new manufacturing methods, including modified chemical vapor techniques, electron beam evaporation, plasma assisted vapor deposition, plasma spraying, high-velocity oxyfuel spraying, laser surface treatment and post-coating processing; failure and spallation of protective oxides; enhanced corrosion by molten salts; role of coating microstructure in coating performance; effect of coatings on the mechanical properties of the substrate, particularly thermomechanical fatigue; coating life modeling; and erosion, erosion-corrosion and foreign object damage.

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### **International Thermal Spray Conference—Nice in 1998!**

#### ***An Invitation***

Every three years, the International Thermal Spray Conference (ITSC) and the associated Exhibition are the highlights of the thermal spray activities both in industrial applications and research fields. The two previous ITSCs (respectively the 13th and 14th) were held in Orlando, FL (USA) in 1992 and Kobe (Japan) in 1995, and they have gathered participants from all over the world. The forthcoming 15th ITSC will be held in Nice, France, in May 1998. This will be the unique event on thermal spray in 1998 with more than 300 contributed papers and 60 exhibitors expected. According to the titles received, the content of the papers will range from theoretical developments in thermal spray processes, coating materials, and materials characterization to direct applications. The exhibits at the 15th ITSC will reflect the latest in thermal spray equipment, powders, and other consumables. A variety of service organizations supplying coatings and/or other equipment related to the thermal spray industry will also be exhibited. Metallographic equipment and services, instrumentation for thermal spray processes, equipment and services for characterization, and so forth, will also be on display. In addition to the conferences and exhibition, an industrial forum on thermal spraying will gather professional people and end users (or potential ones).

Balancing the theoretical and the practical is the key to a great conference, and there will be plenty of opportunities to learn about the latest in research, development, applications, and equipment, while expanding personal networks for problem solving and career building.

This forthcoming ITSC in Nice, the last one of this century, offers attendees the opportunity to cope with the challenges of the 21st century.

### **Conference Organization**

The Conference and Exhibition will be held in Nice at the Convention Center (Nice Acropolis). The objective of the Conference is to provide an opportunity to the thermal spray community from every country in the world to meet, exchange information, discuss, and organize new projects of cooperation. Therefore, the following principles of organization have been instituted:

- Organize the conference in topical symposia. Each symposium will provide a plenary lecture by a leading expert in the field describing the present state of knowledge for that symposium.
- Limit the number of simultaneous oral sessions to three, all of them following parallel time schedules in order to facilitate flexibility of attendance. The auditorium Athena has a capacity up to 750 persons, the others (Auditorium Hermes and Gallieni) have respective capacities of 300 and 150.
- Provide plenty of space and time for informal presentations and discussions. In addition, several small meeting rooms will be available during the Conference for other informal meetings, commercial sessions, or round-tables (reservation recommended). Awards for the best papers will be presented.
- Provide abundant time for attendance to the exhibition.
- Offer a special low registration fee for students representing universities or colleges.

### **Deadlines**

The scientific committee will entertain proposals for topical sessions provided that at least ten papers on the topic can be gathered. Proposals should be sent to the chairman of the scientific committee (Prof. C. Coddet; fax: +33 (0)3 84 58 30 30).

Manuscripts due: 30 September 1997. Papers not complying with the proceeding instruction will not be included in the proceedings of the conference and will not appear in the final program.

The symposia topics include:

- Process and quality control: diagnostic of jets and coatings, including NDT
- Modeling of jets, thermofluid behavior, particles, and deposits
- Spraying processes: for example, lasers and new techniques, combustion, plasmas, and so forth
- Associated processes: pretreatments, posttreatments, and combinations
- Properties of coatings and their characterization
- Sectorial applications: for example, energy, transportation, and so forth
- Composite structures, free-standing shapes, and feedstock
- Thermal barrier coatings
- Wear and erosion—alternatives to conventional coatings
- Oxidation and corrosion

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