



Preface

2009 ICMCTF

The 36th International Conference on Metallurgical Coatings and Thin Films (ICMCTF) sponsored by the Advanced Surface Engineering Division (ASED) of the American Vacuum Society (AVS) was held from April 27 to May 1, 2009 in San Diego, California.

The technical program consisted of 59 technical sessions containing 346 oral and 186 poster presentations. The Conference was opened on Monday morning with a Plenary Lecture by Prof. Steve J. Pearton from the Department of Materials Science and Engineering, University of Florida, Gainesville, FL, USA, entitled “Functionalizing the Surface of Semiconductors for Biological Sensors”. Invited lectures in 8 symposia and 4 topical sessions have been given by 82 internationally recognized experts. In addition, the program included various special highlights. One tutorial was held on “Oral and Poster Presentations: How to Make the Most of 15 Minutes” by R.L. Boxman. Three Focused Topic Sessions were dedicated to “Challenges, Principles, and Applications of Elevated Temperature Nanoindentation” by B. Beake, “Mechanical Properties Measurements of Thin Films and Coatings” by N. Jennett, N. Randall, J. Hahn, and “State-of-the-Art in Surface Mechanical Properties characterization Methods” by N. Randall. More than 650 delegates registered from 45 countries, along with further GG representatives of the companies, which exhibited at the Conference.

The winners of the R.F. Bunshah Annual Award and Annual ICMCTF Graduate Student Awards were awarded for the Conference. The recipient of the R.F. Bunshah Award was Dr. Ivan G. Petrov, University of Illinois, Urbana-Champaign, IL, USA, who is recognized for his research and development achievements in the area of thin film physics, surface science, and microstructural and microchemical analyses. The ICMCTF Lecture given by Dr. I.G. Petrov was focused on the “Control of Micro- and Nanostructures in Transition Metal Nitride Thin Films”. Based on the quality of the written research summaries, resumes, evaluation letters in addition to the quality and professionalism of the oral presentations and discussions at the 2009 ICMCTF the Gold Medal of the ICMCTF Graduate Student Award went to Mr. Florian Rovere from RWTH Aachen University, Germany, for his research achievement on the “Experimental and Computational Study on the Phase Stability of Cubic Al Containing Transition Metal Nitrides”. The Silver Medal went to Ms. Alpana Ranade from Northwestern University, Evanston, IL, USA, for her research achievement on “A New Approach to the Synthesis of Adherent Hard Coatings with High Toughness”. The Bronze Medal went to Mr. Naoya Fukumoto from Keio University, Minato, Tokyo, Japan, for his research achievement on the “Synthesis and Oxidation Resistance of TiAlSiN and Multilayer TiAlSiN/CrAlN Coatings”.

The electronic submission of manuscripts via the Elsevier Editorial System (EES), the selection of reviewers, and evaluation of manuscripts submitted for publication in the Proceedings volumes were strictly identical to those adopted for manuscripts submitted for publication in international scientific journals as regular papers. Under these circumstances, the scientific quality of ICMCTF manuscripts is equivalent to the quality of regular papers. As has been the practice since 1987, the accepted manuscripts are published in the archival journals *Surface and Coatings Technology* or *Thin Solid Films*. Papers from Symposium A (Coatings for Use at High Temperatures), Symposium B (Hard Coatings and Vapor Deposition Technology), Symposium E (Tribology and Mechanical Behavior of Coatings and Thin Films), Symposium G (Applications, Manufacturing and Equipment), Topical Session TS-1 (Computational and Experimental Studies of Thin Film Growth : An Atomistic View), Topical Session TS-2 (Coatings for Fuel Cells), Topical Session TS-3 (Bioactive Coatings and Surface Biofunctionalization), and Topical Session TS-4 (Surface Engineering for Thermal Management) are being published in *Surface and Coatings Technology*. Papers from Symposium C (Optical thin films), Symposium D (Carbon and Nitride Materials: Synthesis–Structure–Property Relationships), Symposium F (Characterization: Linking Synthesis, Properties and Microstructure), and Symposium H (New Horizons in Coatings and Thin Films) are being published in *Thin Solid Films*. 131 papers were reviewed by at least two expert reviewers and accepted on the basis of technical merit and timeliness of submission.

The organization of a conference and assembly of Proceedings volumes of this magnitude require the dedicated effort of many people, most of whom are volunteers. The General Chairman this year was Dr. Jörg Patscheider from the Materials Science and Technology Research Institute (EMPA), Dübendorf, Switzerland, who was responsible for coordinating all activities related to the Conference. The Executive and Program Committee Members for the 2009 ICMCTF are named in the following pages, and their efforts are gratefully acknowledged. In addition, the generous support of the 40 companies exhibiting at the Conference, also listed separately, is recognized, as are the efforts of Bob Finnegan from the American Institute of Physics, Melville, NY, in managing the exhibition.

The Editors would like to offer special thanks to the Program Chairman, Dr. Kathryn J. Wahl from the US Naval Research Laboratory, Washington DC, USA, and all of the Symposia Chairs for assisting in the organization of symposia and technical sessions. We would also like to acknowledge the hundreds of reviewers for their timely submission of quality reports. Last, but may be most important,

we want to express our thanks to all presenters and authors for their contributions.

Finally, on behalf of the entire Conference, we would like to express our appreciation to Phyllis Greene, Conference Manager, for handling local arrangements and ensuring that the Conference ran smoothly in San Diego, and to Mary Gray, Conference Administrator, for processing the abstracts and pre-registrations.

The next ICMCTF will be held in San Diego, California, April 26–30, 2010. The ASED committee has appointed Dr. Kathryn J. Wahl, U.S. Naval Research Laboratory, Washington DC, USA and Dr. Steve J. Bull, Newcastle University, UK, as General Chairman and Program Chairman, respectively.

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