

Introduction to the Special Issue on the APSPT 2013

THE ASIA-PACIFIC International Symposium on the Basics and Applications of Plasma Technology (APSPT) has been held in Taiwan every two to four years since 1997. It is an important annual event in the Asia-Pacific area, providing an excellent platform for exchanging new ideas and sharing the most advanced knowledge in plasma-related science and technology. Thanks to the participants from 10 countries, in the 8th APSPT, we had a very strong program with 187 papers delivered at National Chiao Tung University, Hsinchu, Taiwan, in December 20–22, 2013. This special issue documents the selected presentations in all kinds of plasma science and technology. There were 51 papers submitted after the conference and 32 accepted to be published in this special issue. We also thank the authors, the reviewers, the editors, and the publisher, who have seamlessly worked together to publish this special issue in time. I hope it will help advance our knowledge in plasma science and technology and cultivate future scientific collaboration among those who participated in APSPT 2013. I look forward

to seeing all participants again in the 9th APSPT at Nagasaki University, Japan, in December 2015.

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Jong-Shinn Wu received the B.S. and M.S. degrees in mechanical engineering from National Taiwan University, Taipei, Taiwan, in 1986 and 1988, respectively, and the Ph.D. degree in aerospace engineering from the University of Michigan, Ann Arbor, MI, USA, in 1994.

He was a Post-Doctoral Research Fellow with the University of Michigan until 1995. He has been a Full Professor and the Director of the Advanced Rocket Research Center with National Chiao Tung University, Hsinchu, Taiwan, since 2005 and 2012, respectively, where he is involved in hybrid rocket propulsion, rarefied gas dynamics, low-temperature plasma physics, kinetic-based numerical schemes, and parallel scientific computing. He has authored 85 journal and over 250 international conference papers. He has been constantly invited to give lectures in parallel simulation of plasma and rarefied gas dynamics internationally.

He and his students have received several awards in related fields. He was an Associate Editor of the *International Journal of Plasma Science and Engineering* from 2008 to 2010, a Guest Editor of *Computers and Fluids* from 2010 to 2012 and the IEEE TRANSACTIONS ON

PLASMA SCIENCE in 2014, and has been an Editorial Board Member of the *International Journal of Theoretical and Applied Mechanics* since 2006. He has been a member of the International Advisory Committee of the International Conference on Parallel CFD since 2010, the Asian CFD Conference since 2010, the International Symposium on the Basics and Applications of Plasma Technology since 2013, and other important conferences.



Cheng-Che (Jerry) Hsu received the M.S. degree in chemical engineering from National Taiwan University, Taipei, Taiwan, in 1998, and the Ph.D. degree in chemical engineering from the University of California at Berkeley, Berkeley, CA, USA, in 2006.

He is currently an Associate Professor with the Department of Chemical Engineering, National Taiwan University. His group studies low-pressure plasmas, atmospheric pressure plasma jet, plasma electrolysis in salt solution, and microdischarges through experimental and numerical simulation approaches. He has recently been actively involved in developing portable and low-cost plasma generation devices. His current research interests include plasma science, gas discharge phenomena, and plasma applications, in particular, materials processing, analytic chemistry, and microfluidics devices.



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