

# Guest Editorial

## Introduction to the Special Issue on the 10<sup>th</sup> Asia-Pacific Symposium on Plasma Technology (APSPT 2017)

**T**HE Asia-Pacific International Symposium on the Basics and Applications of Plasma Technology (APSPT) has been held in Taiwan or Japan every two–four years since 1997. It is an important annual event in the Asia–Pacific area and has been a great platform for scientists all around the world sharing novel and state-of-the-art research findings and exchanging innovative ideas in the field of plasma science and technology. The 10th APSPT was held on December 15–17, 2017 at Chung Yuan Christian University, Taoyuan, Taiwan. There has been a very strong program including 207 papers contributed by participants from eight countries. This Special Issue focuses on the following topics, which were also the focus topics in the 10th APSPT:

- 1) Plasmas in Biomedical Applications
- 2) Plasmas in Semiconductor Materials Processing
- 3) Plasmas in Nano-Materials Processing
- 4) Plasma Coating and Surface Modifications
- 5) Plasmas in Agricultural Applications
- 6) Plasmas in Energy & Environmental Applications
- 7) Plasmas in Aerospace/Space Applications
- 8) Fundamentals and Applications of Atmospheric-Pressure and Multiphase Plasmas
- 9) Fundamentals and Applications of Low Pressure Plasmas
- 10) Plasma Diagnostics and Modeling
- 11) Advanced and Novel Plasma Technologies and Sources
- 12) Thermal Plasmas
- 13) Space Plasmas

As Guest Editors, we would like to thank the authors who submitted papers and the referees for their timely review.



**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 a Professor with National Taiwan University. His current research interests include development and diagnostics on low-pressure plasmas, atmospheric pressure plasma jet, plasma electrolysis in salt solution, and microplasmas. He has recently been actively involved in developing portable and low cost plasma generation devices for analysis purposes.

We would also like to acknowledge the Editor-in-Chief, Dr. S. Gitomer, and the Senior Editor, Prof. P. Chu, for their guidance and help throughout the review process. We hope this Special Issue will help exchanging our knowledge in plasma science and cultivate potential collaboration in the community. We look forward to seeing all participants again in the 11th APSPT at Kanazawa University, Kanazawa, Japan, in December 12–14, 2019.

CHENG-CHE HSU, *Guest Editor*  
Department of Chemical Engineering  
National Taiwan University  
Taipei 106, Taiwan

TA-CHIN WEI, *Guest Editor*  
Department of Chemical Engineering  
Chung-Yuan Christian University  
Taoyuan 320, Taiwan

YING-HAO LIAO, *Guest Editor*  
Department of Mechanical Engineering  
National Chiao Tung University  
Hsinchu 300, Taiwan

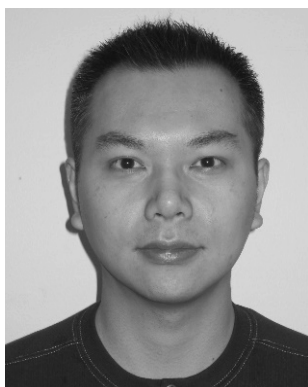
YASUNORI TANAKA, *Guest Editor*  
Faculty of Electrical and Computer Engineering  
Kanazawa University  
Kanazawa 9201192, Japan

KUNGEN TEII, *Guest Editor*  
Department of Applied Science for Electronics  
and Materials  
Kyushu University  
Fukuoka 8168580, Japan



**Ta-Chin Wei** received the B.S.E. degree in chemical engineering from National Taiwan University, Taipei, Taiwan, and the Ph.D. degree in chemical engineering from Penn State University, State College, PA, USA.

He is currently an Associate Professor with Chung-Yuan Christian University, Taoyuan, Taiwan. His current research interests include thin-film processes, plasma processing, electronic materials, plasma diagnostics, and plasma modeling.



**Ying-Hao Liao** received the B.S. and M.S. degrees from the Department of Mechanical Engineering, National Chiao Tung University, Hsinchu, Taiwan, in 2001 and 2003, respectively, and the Ph.D. degree in aeronautics and astronautics from the University of Washington, Seattle, WA, USA, in 2012.

He is currently an Assistant Professor with the Department of Mechanical Engineering, National Chiao Tung University. His current research interests include combustion, laser diagnostics, and plasma technology. He has recently been actively involved in plasma assisted combustion.



**Yasunori Tanaka** received the B.S.E., master's, and Ph.D. degrees from Nagoya University, Nagoya, Japan, in 1993, 1995, and 1998, respectively.

He has been a Full Professor with Kanazawa University, Kanazawa, Japan, since 2010. His current research interests include high-pressure arc plasmas, for example, in a circuit breaker, thermal plasma fundamentals and applications, such as nanoparticle synthesis and surface modifications.



**Kungen Teii** received the B.E. and Dr. Eng. degrees from The University of Tokyo, Tokyo, Japan, in 1992 and 1998, respectively.

He was a Visiting Scholar with the University of Cambridge, Cambridge, U.K., from 2006 to 2007. He is currently an Associate Professor with Kyushu University, Fukuoka, Japan. His current research interests include wide-gap materials, nanostructured carbons, and their applications to electronic, mechanical, and biomedical device systems.

Dr. Teii was a Guest Editor of the IEEE TRANSACTIONS ON PLASMA SCIENCE from 2013 to 2014 and from 2015 to 2016.