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Editorial

Preface – 14th International Conference on Plasma-Based Ion Implantation and Deposition



Selected papers presented at the 14th International Conference on Plasma Based Ion Implantation and Deposition (PBII&D 2017) are published in this special issue of Surface & Coatings Technology. PBII&D 2017 was held from October 17 to 20 of 2017 in Shanghai, China. Organized every two years, the PBII&D conference is the occasion to present latest scientific developments and discuss future trends concerning plasma-based and ion-assisted surface treatment and thin film deposition.

Specialists, scientists, and engineers involved in plasma surface processing attend this conference to present the latest developments. As a result of the applicability and versatility of plasma-based processes to large and complex surfaces and affordable operation, these processes are widely applied to the improvement of a variety of materials including metals, ceramics, semiconductors, and polymers and applications of plasma-treated materials cover metallurgy, electronics, optics, photovoltaic, chemistry, biomedical engineering, and nanotechnology. PBII&D is a multi- and inter-disciplinary forum, which involves researchers and engineers working in plasma physics, materials science, plasma instrumentation and diagnostics, as well as surface analysis.

PBII&D 2017 was attended by about 160 people from all over the world. General and generous sponsorship was provided by Shanghai Institute of Ceramics, Chinese Academy of Sciences, and Shanghai Institute of Microsystem and Information Technology, Chinese Academy of Sciences. Regarding the scientific program, the topics were mainly on plasma-based ion implantation & deposition, IBAD, vacuum arc & hybrid process, HiPIMS, plasma/ion sources, pulsed power & PBII

systems, plasma diagnostics/modeling, plasma/ion-surface interactions, functional materials & interfaces, industrial applications, and scaling issues. The plenary lectures were delivered by Prof. Kesong Zhou of Guangzhou Research Institute of Non-ferrous Metals and Prof. Stephan Mändl of Leibniz-Institut für Oberflächen-modifizierung. 158 papers were presented, including 10 invited talks, 38 oral presentations, and 110 poster papers.

The papers published in this special issue have been rigorously reviewed according to the high standard of the journal and represent the state-of-the-art of the fields. As guest editors, we would like to express our gratitude to all the referees. We also give our sincere thanks to all the attendees, especially members of the international committee, for their contribution to the continuous success of the conference.

The next PBII&D conference will be held in Shenzhen, China in 2019.

Conference Chairperson and Guest Editor

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