The 50th Symposium on Powder Technology

The 50th Symposium on Powder Technology was held at Tokyo Marriott Hotel, Japan on Tuesday, September 13, 2016. It was organized by Hosokawa Powder Technology Foundation (HPTF) with the sponsorship of Hosokawa Micron Corporation. About 160 people from the industries and universities attended this symposium. The theme of the symposium this year was “Powder Technology to Create a Prosperous Future”. There were six lectures with questions and answers followed by a get-acquainted party for further free discussions.

The first lecture was given by Dr. Makino, who was presented the KONA Award last year, on his lifework research in the field of coal utilization power engineering including the recent trends of CO$_2$ capture and storage. The lectures were carried out by the professors with the diversity of the fields including the cancer treatment with the inorganic/bio-complex nanoparticle, the new food flours produced by glassy state foods materials, the continuous production of nanoparticles by supercritical hydrothermal synthesis. The other one lecture was from the industrial field introducing the Internet-of-Things (IoT), which has been applied to powder processing systems for several manufacturing industries.

The last lecture was Special Lecture for the 25th Anniversary of the founding of the HPTF, which was given by Prof. Akira Fujishima, Special University Professor Emeritus of the University of Tokyo and President of Tokyo University of Science, who discovered the titanium dioxide photocatalysis. Prof. Fujishima looked back the history of the discovery of the titanium oxide photocatalysis and explained the important applications across the various fields, as well as the preparation method and characteristics of the diamond electrode.

The contents of the symposium are shown in the followings.

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<tr>
<th>Session 1</th>
<th>Chaired by Prof. emeritus Ko Higashitani (Kyoto University)</th>
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| • Lecture 1 | “Coal Utilization Power Engineering and Powder Technology for the Stable Power Supply in Low-Carbon Society”  
Dr. Hisao Makino (Central Research Institute of Electric Power Industry, JAPAN) |
| • Lecture 2 | “The Cancer Treatment Strategy with the Inorganic/Bio-Complex Nanoparticle”  
Prof. Chiaki Ogino (Kobe University) |

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<th>Session 2</th>
<th>Chaired by Prof. emeritus Kikuo Okuyama (Hiroshima University)</th>
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| • Lecture 3 | “Glassy State Foods Materials Produce New Food Flour”  
Prof. emeritus Rikuo Takai (Tokyo University of Marine Science and Technology) |
• Lecture 4
  “Continuous Production of Nanoparticles by Supercritical Hydrothermal Synthesis
  -Nanoparticles Synthesis, Nanohybrid Materials, and Surface Controlled Nanocatalysts-”
  Prof. Tadafumi Adschiri (Tohoku University)

• Lecture 5
  “The Internet-of-Things, Opportunities to Improve Manufacturing Processes”
  Dr. Iain Crosley (Hosokawa Micron Ltd. (UK))

Session 3  Chaired by Prof. emeritus Minoru Takahashi (Nagoya Institute of Technology)

Special Lecture for the 25th Anniversary of the founding of HPTF

• Lecture 6
  “Titanium Dioxide Photocatalysis and Diamond Electrode”
  Special University Professor Emeritus of the University of Tokyo, Akira Fujishima (President
  of Tokyo University of Science)