The 6th Asian Symposium on advanced materials: chemistry, physics and biomedicine of functional and novel materials (ASAM-6) on September 27-30, 2017 at Hanoi, Vietnam.

Chang-Sik Ha*

Department of Polymer Science and Engineering, Pusan National University, Busan 46241, Korea

Accepted on October 9, 2017

Following the previous Asian Symposium on Advanced Materials (ASAM), the 6th ASAM was held on September 27-30, 2017 at the Hoa Binh hotel, Hanoi, Vietnam. The previous symposia were held at Vladivostok, Russia (organized by Professor Yury Shchipunov of Russian Academy of Sciences, Russia and Professor Chang-Sik Ha (Pusan National University, Korea)) in 2007, Shanghai, China (organized by Professor Dongyuan Zhao and Limin Wu of Fudan University, China) in 2009, Fukuoka, Japan (organized by Professor Atsushi Takahara (Kyushu University, Japan) in 2011, Taipei, Taiwan (organized by Professor Toyoko Imae(National Taiwan University of Science and Technology, Taiwan) in 2013, and Busan, Korea (organized by Professor Chang-Sik Ha and Professor Yury Shchipunov) in 2015.

This symposium has been intended as a forum for interdisciplinary discussion between scientists and engineers from Asian universities, research institutions and companies, who are investigating or concerned themselves in advanced materials. Such materials can serve for improving and developing chemical engineering, nanotechnology, microelectronics, optics, environmental science and biomedical technologies, they make human life healthy and comfortable in quality. In particular, one of the main philosophy of the ASAM is to stimulate and encourage graduate students and young researchers in the field of materials sciences by providing opportunities to be acquainted with eminent materials scientists in the world as well as Asian countries. This is why the ASAM has kept the policy of relatively cheap registration fees (300 USD for general participants, while 100 USD for students) to encourage the active participation of students and young researchers in Asian countries.

The symposium has been organized for every two year by the cooperation among eminent material scientists in Asian countries including Prof. Li-Jen Chen (National Taiwan Univ., Taiwan), Prof. Jian Ping Gong (Hokkaido Univ., Japan), Prof. Chang-Sik Ha (Pusan National Univ., Korea), Prof. Toyoko Imae (National Taiwan University of Science and Technology, Taiwan), Prof. Jung-Il Jin (Korea Univ. and Korea Academy of Science and Technology, Korea), Prof. Alexei Khokhlov (Lomonosov Moscow State Univ., Russia), Prof. Sung Chul Kim (KAIST, Korea), Prof. Yury Kulchin (Russian Academy of Sciences, Russia), Prof. Nguyen Quang Liem (Inst. of Materials Science-Vietnam Academy of Science and Technology (VAST), Vietnam), Prof. Valentin Parmon (Russian Academy of Sciences, Russia), Prof. Yury Shchipunov (Russian Academy of Sciences, Russia), Prof. Atsushi Takahara (Kyushu Univ., Japan), Prof. Supason Wanichwecharungruang (Chulalongkorn Univ.,Thailand), Prof. Limin Wu (Fudan Univ., China), and Prof. Dongyuan Zhao (Fudan Univ., China) as well as Prof. Thai Hoang (Institute for Tropical Technology, Vietnam Academy of Science and Technology (VAST), Vietnam) who is an organizer of the 6th ASAM. The close friendship among those international advisors have made previous and present ASAM successful in the sense of excellent scientific quality of presentations and friendly atmosphere of the symposia.

The symposium topics include 1) Fundamental Science of Materials, 2) Materials on Energy Science, 3) Materials on Environmental Science, 4) Materials on Biomedical Science, 5) Multidisciplinary Materials, and 6) Others. However the topics were not limited to those listed here. Any topics related to the design, processing, structure and properties evaluation of advanced materials were welcomed.

The ASAM-6 was held at Hoa Binh Hotel, which was erected in 1926 with the name 'Le Splendide' and has been known as one of the finest architectural wonders that have been preserved from the past in Hanoi, Vietnam, under the organization of Prof. Thai Hoang (Director of Institute for Tropical Technology, Vietnam Academy of Science and Technology) on Sept. 27-30, 2017. The ASAM-6 consisted of 4 plenary talks, 15 keynote talks, 19 invited talks, 35 oral talks and 88 poster presentation. About 200 participants were joined to the ASAM-6 from 13 countries including Korea, China, Japan, Russia, Taiwan, Thailand, UK, USA, Germany, Spain, Egypt, Brunei as well as Vietnam. The majority of participants were from Korea, Japan, Taiwan, Russia, China, and Vietnam.

For plenary talks, Prof. Chang-Sik Ha of Korea presented on functional organic/inorganic nanohybrids, where he presented recent state of art in polymer based hybrid materials, while Prof. Nguyen Quang Liem of Institute of Materials Science, Vietnam Academy of Science, Vietnam presented nano-structured optoelectronic materials: synthesis, optical properties and potential applications. In addition, Prof. Ian Manners of University of Bristol, UK, presented "living" crystallization-driven, seeded growth approaches to functional supramolecular materials, while Prof. Atsushi Takahara of Kyushu University, Japan gave a presentation on the characterization and surface properties of immobilized polyelectrolyte brushes in aqueous environment.

Other keynote and invited talks also got much attraction from the audiences. Among those excellent contributions, I would

like to mention a few typical noteworthy presentation; Organic electronics for solar cell and thermal energy conversion (by Prof. Youngkyoo Kim of Kyungpook National University, Korea), Characterization of self-assembled nanoparticles of drug delivery by use of solution scattering techniques (by Prof. Kazuo Sakurai of University of Kitakyushu, Japan), Composite materials for energy generation and storage (by Prof. Toyoko Imae of National Taiwan University of Science and Technology, Taiwan), Advanced materials syntheses and their applications in micro-flow(by Prof. Holger Loewe of Johannes Gutenberg-Universität Mainz, Germany), Dimensionally stable cellulose aerogels: preparation, functionalization, and applications (by Prof. Yury Shchipunov of Russian Academy of Sciences, Russia), and High performance supercapacitor based on synergic effect of polymer composite electrode and redox electrolyte (by Prof. Xiuguo Cui of Beijing Institute of Petrochemical Technology, China).

Also, more than 80 posters were presented, who topics were of broad spectra of chemistry, physics, and biomedicine of advanced materials.

It was really desirable that many Asian graduate students actively participated in the poster presentations, since they might have very good opportunities to make new international friends who came from abroad as well as to learn the states of art in the field of materials science. There were seven poster presentation awards (two for first awards, two for second awards, and three for third awards) to the young researchers under 35 years old or graduate students who presented excellent poster papers. Poster presentations also covered a variety of materials for various applications with researches on fundamental physics, chemistry, or biomedicine. Such advanced applications include for secondary battery, solar cell, catalyst, biodegradable or eco-friendly materials, drug delivery system, biosensing, gas adsorption, or heavy metal ion monitoring, etc.

The ASAM-6 was ended with an excursion to the Halong Bay, one of the world heritages and most attractive places in the world as well as in Vietnam for its beautiful scenery on Sept. 30, 2017. Most of participants joined to the memorable excursion thanks to the sunny atmosphere and fresh air on that day in spite of sporadic rain drops before taking a boat. The next ASAM-7 will be held at Beijing, China in fall of 2019.

The ASAM-6 was well organized thanks to the great efforts of Prof. Thai Hoang and his group members in the Institute for Tropical Technology, VAST including Prof. Nguyen Vu Giang (Inst. for Tropical Technology-VAST) as the general secretary of the ASAM-6. In particular, we have to thank all of them for their great hospitality and very nice arrangement for hosting foreign participants as well as local participants around the nation, Vietnam.

***Correspondence to:**

Chang-Sik Ha
Department of Polymer Science and Engineering
Pusan National University
Korea
Tel: +82-51-510-2407
E-mail: csha@pnu.edu