

## **CACS 25th Anniversary Symposium/Celebration and Banquet**

Our CACS Second Vice-President, Dr. Yunsheng (Tony) Hsieh, and Chairman, Professor Winston Ho as well as Professor Jeff Hsieh (Georgia Institute of Technology), our CACS President, Dr. Yi Hua Ed Ma, and our Treasurer and board member, Dr. Chu-An Chang took care of the major events successfully this Spring for our CACS 25th Anniversary Symposium/Celebration and Banquet. The Symposium/Celebration organized by Tony and Winston and cosponsored by the ACS Division of the History of Chemistry took place in conjunction with the ACS 231st National Meeting in Atlanta, Georgia, Monday, March 27, 2006. As you may recall, our CACS was founded at the ACS National Meeting in Atlanta, Georgia in 1981 by the late CACS Board Member, Dr. Jesse Hwa, and other CACS leaders. Thus, it was particularly meaningful for this Symposium to celebrate the silver anniversary of the CACS at its founding site at the ACS meeting. A note from Mrs. Hwa before this Symposium said that "Jesse will be smiling on March 27". With the theme on sustainable contributions by chemical professionals, this Symposium had the format consisting of invited VIP presentations and Keynote lectures.

The VIP presentations were by Dr. Ed Ma, CACS President, Dr. Ann Nalley, ACS President, Dr. John Chen, AIChE (American Institute of Chemical Engineers) President, and Dr. Arnold Thackray, President of Chemical Heritage Foundation. Frances B. Manning Professor of Chemical Engineering and Director, Center for Inorganic Membrane Studies, in the Department of Chemical Engineering at Worcester Polytechnic Institute in Worcester, MA, Dr. Ma, our CACS President, challenged our members on continued contributions on the service to and the growth of our Society after his congratulatory remarks on the special occasion of the CACS 25th Anniversary. He hopes that CACS will get younger chemists and chemical engineers involved and that CACS will encourage Chinese chemists and chemical engineers to become more active in their communities and to voice their opinions. ACS President, Dr. Nalley, Professor of Chemistry in the Department of Physical Sciences at Cameron University in Lawton, OK, appreciated the role played by CACS in the ACS. She reminded the audience of the importance of peer recognition and encouraged everyone to nominate their colleagues, to identify their accomplishments, and to recognize them. AIChE President, Dr. Chen, who is Carl R. Anderson Professor in the Department of Chemical Engineering at Lehigh University in Bethlehem, PA, emphasized the important role Chinese Americans play and their contributions in the chemical industry. Dr. Thackray, President of Chemical Heritage Foundation, founded by the joint action of ACS and AIChE in 1987 and located in Philadelphia, PA, talked about the Chinese history and tradition in chemistry.



Ma presenting his VIP remarks –  
Photo by Linda Wang, C&E News



Nalley giving her VIP remarks – Picture by  
Linda Wang, C&E News



Right: Professor Bert Ramsay of  
Michigan State University translating  
Nalley's remarks into Chinese – Photo  
by Linda Wang, C&E News



Chen delivering his VIP remarks – Photo  
by Linda Wang, C&E News



Thackray making his VIP remarks – Photo  
by Linda Wang, C&E News

After the VIP presentations, there were three invited Keynote Lectures by Dr. Norman N. Li, President, NL Chemical Technology, Inc., Dr. Hai-Lung Dai, Professor, University of Pennsylvania, and Dr. L. S. Fan, Professor, The Ohio State University. Having had 43 years of distinguished career in chemical and petroleum industries, including at Exxon, UOP, AlliedSignal, Honeywell, and now NL Chemical Technology and a rare distinguished honor of being a member of 3 academies, National Academy of Engineering, USA, Chinese Academy of Sciences in China, and Academia Sinica in Taiwan, Dr. Li gave a lecture on “Water Treatment and Reuse by Membrane Technology”. The lack of clean water is a serious problem in many parts of the world, and membrane technology is effective in removing impurities and pollutants from water. As pointed out by Dr. Li, there are basically two broad types of membranes for water treatment and reuse; one is solid polymeric membranes and the other facilitated transport membranes. Within each broad type, there are several specific types of membranes. His talk discussed the various specific types of membranes and their roles in water treatment and reuse processes. His discussion included not only the present membranes and membrane processes, but also the future developments of new membranes and processes, including those with superior fouling resistance. Also described was the use of Six Sigma management and quality program in membrane R&D and manufacturing.

The Hirschmann-Makineni Professor of Chemistry in the Department of Chemistry at the University of Pennsylvania, Dr. Dai talked about “Science Education, Research, and Society – The Perspectives of an Immigrant Research Scientist and Teacher”. He discussed novel spectroscopic techniques using light for characterizing the structure and properties of transient and unstable molecules on surfaces. He cited a recent National Academies Committee on Prospering in Global Economy of the 21st Century report to Congress, *Rising above the Storm: Energizing and Employing America for a Brighter Economic Future*, pointing out several areas critical to the economic competitiveness of the U.S. which have been identified for improvement: talent pool and education in science, basic research support, commercializing and investing in innovation, and intellectual right protection. He provided personal perspectives on the strength and current problems encountered in science education, from K-12 to college, and research here in the U.S. He also discussed how an immigrant scientist could contribute to the betterment of science education and research in the U.S.



Dai delivering his Keynote Lecture – Photo by Linda Wang, C&E News

Li presenting his Keynote Lecture – Photo by Linda Wang, C&E News

The Distinguished University Professor and C. John Easton Professor of Engineering in the Department of Chemical & Biomolecular Engineering at the Ohio State University and a member of the National Academy of Engineering, USA, Dr. Fan presented his lecture “On the Clean Fossil Energy Conversion Systems”. He described the overall energy outlook in the context of the chemistry, mechanisms, process engineering, economics, and regulations that surround the development of the new clean coal technologies. His presentation covered the salient features of the fundamental and process aspects of the technologies conceived and developed in his laboratory, including commercially demonstrated  $\text{SO}_x$  and  $\text{NO}_x$  reduction processes,  $\text{CO}_2$  sorbent separation and mineral sequestration processes, and high temperature  $\text{H}_2\text{S}$  sorbents. Three new combustion and gasification processes based on the chemical looping



concepts developed in his laboratory were discussed. He highlighted the syngas chemical looping process which his group was developing for the Department of Defense in the production of jet fuels from coal. The state-of-the-art research in fluidization including the discrete computation of gas-liquid-solid fluidized beds and the 3-D imaging of the dynamics of the choking transition in gas-solid fluidized beds was also presented.

Fan giving his Keynote Lecture – Photo by Linda Wang, C&E News

All of the Keynote presenters are internationally well-known scientists. All of the VIP and Keynote presentations were fantastic and well received.



CACS 25th Anniversary Symposium group photo taken by Linda Wang, C&E News (From left, Tony Hsieh, Winston Ho, Arnold Thackray, John Chen, Ann Nalley, Ed Ma, Norman Li, L. S. Fan, and Hai-Lung Dai)

Following this Symposium, we had a banquet/dinner and the Keynote Address by Mr. Chris Hobson, Senior Vice President, Research and Environmental Affairs, Southern Company, at this company in the evening. Attended by about 100 people including all of our invited speakers and our CACS members and guests, the Keynote Address was on “Environmental Controls and Advanced Power Generation”. Mr. Hobson discussed the system-wide environmental issues and environmental compliance planning as well as research and development of new technology to address future challenges for advanced power generation, particularly from coal. We would like to thank all of the VIP and Keynote speakers for making the Symposium and Banquet successful and memorable.



Ho presenting an appreciation plaque to Hobson at CACS banquet – Picture by Dr. Jane Li

At the end of the 25th-anniversary celebration, some attendees including graduate students stayed around to mingle, exchange contact information, and walk over to the ACS' Sci-Mix poster session together. They laughed, joked, and talked chemistry. It certainly was a great occasion for making new friends and lasting impressions.



Buffet-style banquet/dinner – Photo by Linda Wang in May 1, 2006 C&E News



Another picture for the buffet-style banquet/dinner taken by Linda Wang, C&E News