

## Preface

Drying is an old process that has been with human civilization since day one. It is still one of the important unit operations in current processing industries. Although this classical operation has been practiced since pre-historical times, drying and dewatering remain more as an art than a scientific subject. This is because there are so many aspects involved in the seemingly simple process, thermal removal of water from wet materials.

Drying is the key process determining the quality of dried products. It is also one of the most energy intensive processes. The last energy crisis brought about the birth of the International Drying Symposium. Energy remains a hot topic together with environmental protection. Heat pump process not only can utilize low quality energy, it has been found to produce higher quality of the dried products as shown in the theme session. Food preservation is an everyday exercise with drying being an essential process with a large number of papers concerned with this topic in this conference. Drying process more often than not would involve multiphase flow with particulates. It requires understanding of the fluid mechanics, heat and mass transfers in a dynamic situation. Turning a slurry to dry particles in a spray dryer is another complex example. Switching heated air to superheated steam has been a hot research topic for over two decades, we can witness some industrial process gradually in operation with one keynote lecture on this aspect in this conference. Freeze drying remains the most expensive and yet elegant process to produce the highest quality of products especially when specialty chemicals or pharmaceuticals are concerned. Reducing energy consumption and accelerating the drying rate are still two key process concerns in addition to the quality of the product for freeze drying. Recent establishments of process industrial development linked with drying give our drying experts confidence that significant benefits can be achieved when a proper dryer or drying system is selected.

I am very pleased to edit this set of the two volumes of Proceedings of the 5<sup>th</sup> Asia-Pacific Drying Conference. Initially I received 245 abstracts from 33 countries and regions. Subsequently, 217 full papers were submitted. 195 papers were accepted, revised and included in this proceedings.

For such a large number of papers to be reviewed and revised in time, I owe a great thanks to the contributors and reviewers. There are many people I wish to thank with the following a few being the representatives:

Professor *Arun S Mujumdar*, the founder of International Drying Symposium and also one of the founders of the Asia-Pacific Drying Conference, deserves the biggest “thank you”. Not only he gave me timely guidelines at each critical point for the call of papers, abstract review, paper collection and review, he himself has served as authors and reviewers for a number of manuscripts.

The co-ordinators of mini-sessions started their participation of the conference even before the first announcement of call for papers was made public. They gave me their helps from papers solicitation, review and initial notification of acceptance. Six of the co-ordinators essentially shouldered nearly half of the workload during this period of time. They are: *Sakamon Devahastin of Thailand, Lixin Huang of China, Md Raisul Islam of Malaysia, Chunglim Law of Malaysia, Bhaskar N. Thorat of India, and Wei Wang of Hong Kong.* Thank you very much!

For the papers outside the topical sessions, I am so grateful that the following experts have chaired the review processes: *Yoshinori Itaya of Japan, Tim Langrish of Australia, Shusheng Pang of New Zealand, Maria A. Silva of Brazil, Shyam Sablani of Oman (now moved to USA), George Srzednicki of Australia.* Each one of them has processed some papers by inviting reviewers or acting as a reviewer for some papers. Without their dedicated supports, I would not have the high quality of papers you will read in this proceeding.

We all agree that technical papers alone do not make a successful conference. I appreciate it very much of the sponsors of this conference: *School of Engineering, The Hong Kong University of Science and Technology, K.C. Wong Education Foundation, Taylor & Francis Group, Institute of Chemical Engineering, Chemical Industry and Engineering Society of China, Puschner Microwave Power Systems, Shandong Tianli Drying Equipment Ltd., Wuxi City Linzhou Dryer Factory, Changzhou Yibu Drying Equipment Co. Ltd, TianHua Technology, WFCFD-World Forum of Crystallization, Filtration and Drying and Pinches Consolidated Industries.* Your supports in monetary or in kind make it possible for the conference to invite internationally renowned experts to give lectures, and to lower the registration fees.

I would like to take this opportunity to thank the members of the *International Advisory Committee, the International Scientific Committee, the Award Committee* and the *Organizing Committee* for their dedication, contribution, advices and supports of the conference. Their active participation ensured the success of the conference. *Dr. Kishori Mohan Kundu of India, the*

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Last but not least, I thank you for your participation of ADC07. I wish your experiences in HKUST and HK are enjoyable. I am sure you will find the papers in this proceeding intriguing and useful.

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