

Special Issue of the joint 18th International Heat Pipe Conference & 12th International Heat Pipe Symposium

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This special issue is dedicated to the joint 18th International Heat Pipe Conference & 12th International Heat Pipe Symposium held in Jeju Island (Republic of Korea) in June 2016. The efficiency and application of heat pipes increased since the last decades due to significant advances in experimental and theoretical understanding of the heat transfer with phase change. This is also reflected by the rising numbers of papers dealing with microscale heat and mass transfer in e.g. heat pipes and thermosyphons, especially in this journal. All these activities coincide with the increasing need and demand of energy efficient systems e. g. for cooling or heat recovery to avoid climate change and to save the natural resources. New developments in this topic are reported by this journal since the first International Heat Pipe Conference in 1973 held in Stuttgart (Germany). The current special issue is devoted to the 18th International Heat Pipe Conference and 12th International Heat Pipe Symposium, which featured 144 peer-reviewed paper presentations and about 250 participants from 24 countries. The conference offered a truly international scientific exchange of research and industrial application in fundamentals of heat pipes, their manufacturing processes and their application in industrial processes. The formal and informal sessions at the conference provided

various opportunities to discuss individual papers and general issues and future research collaborations facing the following topics: theoretical and experimental fundamentals in transport processes related to heat pipes and thermosyphons in micro and miniscale; new developments in manufacturing and material processing of wicks, fluids and materials; aerospace application; application of heat pipes in microelectronic and control and new fields in industry.

The papers published in this special issue were preselected by the conference chair, Prof. C. Byon (Republic of Korea), and a member of the Scientific Committee, Prof J. Bonjour (France) and were peer-reviewed for publication in Heat and Mass Transfer. These works reflect a very good spectrum of topics of current interest in the heat pipe technology in a wide range. I would like to acknowledge gratefully the Editorial including the overview of the conference provided by Professor Bonjour and Byon. Finally, I want to express special thanks to the authors for their contributions to this special issue, and the reviewers of the manuscripts for their invaluable input, responsiveness and for making the publication of this special issue possible. I deeply appreciate the contribution of the organizers of the Conference and of the Scientific Board, Professor Byon and Bonjour and their teams.

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