



In Memoriam

In memoriam - Professor Shigefumi Nishio (1949-2022)



It is with deep regret that we announce the passing of Professor Nishio on 9 March 2022, at the age of 72. He was editor of the *International Journal of Heat and Mass Transfer* and of the *International Communications in Heat and Mass Transfer* as well as a leading figure in the community of heat and mass transfer.

Professor Nishio was born in Gifu, a central prefecture of the main island in Japan. Soon after, he moved to Tokyo at the age of three and spent all his life in this city up to the date when he passed away. Professor Nishio started his professional career in 1977, when he was conferred the doctor degree of engineering supervised by Professor Masaru Hirata on “the study of direct contact between high temperature solid surface and liquid droplet”, and was immediately appointed as Lecturer of the Institute of Industrial Science (IIS), The University of Tokyo. In 1978, he was promoted to Associate Professor, and to Professor in 1995. Meanwhile Professor Nishio stayed at Professor V. K. Dhir’s laboratory on phase change heat transfer at the University of

California, Los Angeles from 1988 to 1989 as a visiting scholar. Professor Nishio was also appointed as an affiliate associate professor in 1994 and professor in 1996 at Kyusyu University. Because of his distinguished reliable character, in 2002 Professor Nishio was elected to be Director General of IIS, and appointed as an Executive Director and Executive Vice-President of The University of Tokyo in 2005. Most unfortunately, however, a sudden intracerebral bleed attacked Professor Nishio in autumn of 2008, and he retired from The University of Tokyo in 2011. Despite his long struggle with rehabilitation supported by his dedicated family, especially by his wife, Professor Nishio passed away in 2022 during Covid-19 catastrophe. Recognizing the contribution to his academic field and administration, Professor Nishio was decorated with the Order of the Sacred Treasure by Japanese government, Gold Rays with Neck Ribbon, and invested into Jushii (Junior Four Rank in court) by Imperial decree.

As a researcher, Professor Nishio made special contributions in the field of boiling heat transfer and heat transport devices. His work was published in over 130 journal articles and 16 books. In recognition of distinguished research of Professor Nishio in the field, his papers entitled “*Natural-Convection Film-Boiling Heat Transfer. 6th Report. Heat Transfer Correlation of Film Boiling with Wavy Interface*” and “*Visualization of Boiling Structure in High Heat-Flux Pool-Boiling*” received the Best Paper Award from the Japan Society of Mechanical Engineers (JSME) in 1994 and in 2004. A series of his research papers in the latter field on the heat pipe with oscillatory flow was also awarded as the Distinguished Academic Work (Koichi Ohshima Prize) by the Japan Association for Heat Pipes in 2004. His contribution in these fields was recognized with a Distinguished Research Award in 2002 and with an Outstanding Leadership Award in 2010, both by JSME Thermal Engineering Division.

Professor Nishio was an editor of the *International Journal of Heat and Mass Transfer* and of the *International Communications in Heat and Mass Transfer* from 2003 until 2007. From 2001 until 2006, he was also a Chief Editor of the *Thermal Science and Engineering (TSE)*, which is transactions of The Heat Transfer Society of Japan (HTSJ). Besides these activities in academic societies, he was directors of several academic societies. These positions include Division Chair of JSME Technology and Society Division (1999), Thermal Engineering Division (2005), JSME Executive Director (2000-2001) and HTSJ Executive Director (1998). Professor Nishio also worked as steering committee member of many international conferences, and organized the 6th ASME/JSME Thermal Engineering Joint Conference in Hawaii and 2004 International Conference on Microchannels and Mini-channels as chair.

These official records are only a part of engraved memory of Professor Nishio. His cheerful and straightforward personality and insightful suggestions on research that was supported by his character of

deep humility and his comprehensive perspective in scientific research always encourage those who had any contact with him.

On behalf of the editors of this journal, his colleagues and friends, former students and co-workers, we all remember his dedication and his outstanding work in our society of heat and mass transfer.

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