



Invited Letter

Professor Takeshi Matsuura: An Inspiration to Young Membranologists

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Prof. Takeshi Matsuura has made an influential and lasting contribution over several decades to membrane science, technology and engineering, with particular attention made to the fields of desalination and water and wastewater treatment. He was educated at the Department of Applied Chemistry at the Faculty of Engineering, University of Tokyo, where he obtained his BSc and MSc degrees, before pursuing a Doktor-Ingenieur degree at the Institute of Chemical Technology of the Technical University of Berlin. He joined the National Research Council of Canada in 1969, having previously held positions at the Department of Synthetic Chemistry of University of Tokyo and the Department of Chemical Engineering of the University of California. From 1992 he was the Professor and Holder of the British (Consumer) Gas/NSERC Industrial Research Chair in University of Ottawa, where he was the director of the Industrial Membrane Research Institute at the University of Ottawa until 2002.

His work has included the studies into membrane transport during reverse osmosis processes and development of cellulose acetate membranes for reverse osmosis applications, which lead to the publication of the seminal work "Reverse Osmosis and Ultrafiltration/ Process Principles" in collaboration with Prof. S. Sourirajan. His other contributions include pioneering water treatment applications of nanofibre membranes, the use of macromolecules to perform surface modification of polymer membranes, and in the surface characterisation of membrane using atomic force microscopy based techniques.

The work of Prof Matsuura has been of immense practicality and garnered great insight into the development and characterisation of membrane systems. As a result he has been an inspiration for many membrane scientists and technologists and process engineers working within desalination and water processing fields. His work has demonstrated throughout how fundamental scientific and engineering principles can be applied to problems in membrane based water treatment, particularly in fouling mitigation and prevention. As a fellow researcher in these fields I greatly value his leadership and vision, and feel privileged to consider him a friend.

Prof. Matsuura's continues to actively participate in research and teaching activities with many collaborators at several institutions around the world. I think that all of us working in the fields of desalination and water technologies have a very high regard for Prof. Matsuura, not only for his many contributions to science and engineering, but also for his kindness, his warmth and placatory nature.

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