Professor Jyh-Ming Ting

Prof. Jyh-Ming Ting is an Advanced Semiconductor Engineering Inc Chair Professor at the Department of Materials Science and Engineering, National Cheng Kung University (NCKU) in Taiwan. Prof. Ting has a BS degree in Nuclear Engineering from National Tsing Hua University, Taiwan, and MS and PhD degrees at the Department of Materials Science and Engineering, University of Cincinnati. After Prof. Ting received the PhD degree, he joined Applied Sciences, Inc. (ASI), Ohio, USA as a Scientist and then R&D Director. After 8-year working at ASI, Prof. Ting accepted a faculty position in NCKU. Prof. Ting's expertise includes thermally hyper-conductivity carbon-based materials, and multi-metal and high-entropy thin films and coatings for various functional applications, especially those involving catalysis. His most recent research effort is dedicated to seawater electrolysis for the production of green hydrogen. Prof. Ting has received a number of awards, authored over 230 refereed journal articles, and holds more than 36 patents.

Professional Experience

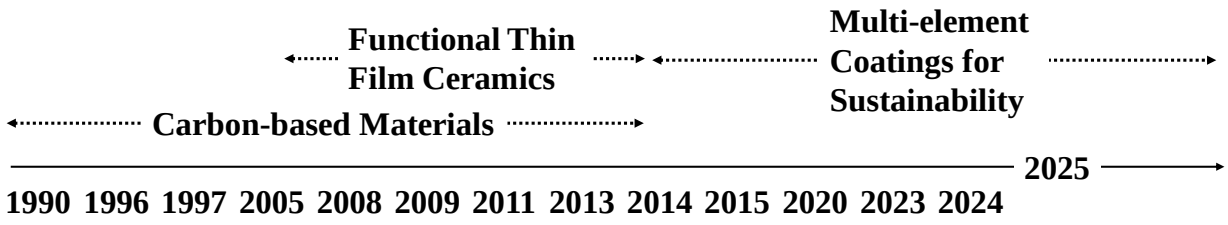
- 1997 to present - Professor, Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan
- 2016 to 2021 – Vice Dean, College of Engineering, National Cheng Kung University, Tainan, Taiwan
- 2016 to 2017 – President, Taiwan Association for Coating and Thin Film Technology
- 2012 to 2015 – Chair, Department of Materials Science and Engineering, National Cheng Kung University, Tainan, Taiwan
- 2001 to 2006 – Division Director, Research Headquarter, National Cheng Kung University, Tainan, Taiwan
- 1994 to 1997 – R&D Director, Applied Sciences, Inc., Ohio, USA
- 1992 to 1993 – Senior Research Scientist, Applied Sciences, Inc., Ohio, USA
- 1990 to 1991 – Research Scientist, Applied Sciences, Inc., Ohio, USA

Honor and Award

- 2023 – Outstanding Research Award, National Science and Technology Council, Taiwan
- 2020 – Fellow, Material Research Society, Taiwan
- 2015 – ASE Chair Professor, Taiwan
- 2015 – Outstanding Contribution Award, Taiwan Association for Coating and Thin Film Technology

- 2014 – Outstanding Research Award, National Science and Technology Council, Taiwan
- 2013 - Outstanding Technology Transfer Contribution Award, National Science and Technology Council, Taiwan
- 2011 - Outstanding Engineering Professor Award, The Chinese Institute of Engineers, Taiwan
- 2008 - KT Li Technology Gold Medal Award, The KT Li Foundation for the Development of Science and Technology, Taiwan
- 2005 - Outstanding Technology Transfer Award, National Science Council, Taiwan
- 1996 - R&D100 Award, USA

Research



- Carbon-based Materials research focused on the research and development of vapor-grown carbon (nano) fiber for thermally hyper-conductive composites. The resulting patents have been licensed to a number of companies in Taiwan.
- The research on Functional Thin Film Ceramics was primarily related to the development of various semiconducting oxides, such as aligned TiO_2 nanorods, prepared using sputter deposition.
- Continued from the subject of Functional Thin Film Ceramics, research and development of novel multi-element coatings as catalysts is addressed. Various electrochemical applications are targeted, focusing on Sustainability. Examples include water electrolysis, waste treatment, electrochemical advanced oxidation processing, and electrochemical reforming. Currently, seawater electrolysis using anion exchange membrane water electrolyzer is highlighted.