

Brief CV of Professor Supawan Tantayanon

Dr. Supawan Tantayanon is currently the Professor of Chemistry, Faculty of Science at Chulalongkorn University, Thailand, as well as the President of the Science Society of Thailand under the Patronage of His Majesty the King and the President of the Council of Science and Technology Professionals, Thailand.

Her areas of interest and expertise include:

- the research in organic and polymer syntheses, green chemistry, and alternative energy
- the education in chemical safety, green chemistry, and small-scale chemistry.

Professor Tantayanon joined the Chemistry Department of Chulalongkorn University in 1975. During her career, she initiated and established three new academic programs:

- The international BSc program on Applied Chemistry (2005)
- The MSc program on Petrochemistry and Polymer Science (1985)
- The MSc and PhD programs on Technopreneurship and Innovation Management (2007)

All these three programs are still popular till today. In addition, she recently helps advise to establish the MSc and PhD programs on Green Chemistry and Sustainability, beginning its first semester in August 2021.

Professor Tantayanon was the Founding Director of the Petroleum and Petrochemical College, which was new to Thailand at the time (established in 1989). She later was a consultant of some petrochemical companies for 11 years. This experience made her realize the importance of chemical safety for human health and the environment and the integration of chemistry, business and society. It influenced her teaching and research interest so much that her focus shifted to “greener” and application-driven chemistry. She was also the Deputy Dean for Academic Affairs of Faculty of Science, Chulalongkorn University (2003-2007).

Her attention has been paid on small-scale chemistry since 2000, firstly to solve the problems on the high risk of chemical exposure to students in the laboratory. Later she endeavoured the great benefits of doing small-scale chemistry, enabling her to create the complete set of portable organic chemistry laboratory called Small-Lab Kit. With this invention, she has obtained four Thai patents on the design of the heating equipment and glassware. She is also the editor of the book (in Thai) entitled “Organic Chemistry Laboratory Based on Chemical Safety and Pollution Minimization” and the author of a chapter entitled “Microscale Organic Experimentations Using Small-Lab Kit” in the book “Microscale Chemistry Experiments for All Ages”, The Academic Arab College for Education. Later she was invited to write the book entitled “Small Scale Laboratory: Organic Chemistry at the University Level” which is available for free download on the UNESCO website since 2009.

Professor Supawan Tantayanon has also been appointed to be the Director, Green Chemistry Institute (Thailand Chapter), American Chemical Society, USA since 2002 till 2011. She translated the book “Green Chemistry: Theory and Practice” into Thai. Recently she has been appointed to be the co-author of the book “Chemical laboratory safety and Security: A Guide to Developing Standard Operating Procedures”, The National Academies Press, USA available since 2016.

She has been invited to be the plenary speakers on the topic concerning small-scale chemistry of the following conferences, namely:

- *25th Philippine Chemistry Congress, the Philippines*
- *Simposio Miicroquim 2010, Mexico*
- *International Symposium for the 70th Anniversary of the Tohoku Branch Chemical Society of Japan, Japan*
- *The 8th International Microscale Chemistry Symposium, Mexico 2015.*
- *The Pure and Applied Chemistry International Conference 2017, Thailand, 2017.*

Professor Tantayanon held numerous national and international positions. The significant positions include:

- the first President of the Polymer Society of Thailand (1997-2003)
- the eighth President of the Pacific Polymer Federation (2002-2003)
- the tenth President of the Chemical Society of Thailand under the Patronage of HRH Princess Chulabhorn (2007-2013)
- the seventeenth President of the Federation of Asian Chemical Societies (2011-2013)

Professor Tantayanon has involved in IUPAC in many roles since 2009, as the National Representative and observer of Polymer Division, Chemistry and Environment Division, Chemistry and Human Health Division, Chemical Nomenclature and Structure Representation, and Committee on Chemical Research Applied to World Needs. Currently, she is the Committee on Chemistry Education, and Interdivisional committee on Green Chemistry for Sustainability Development. Significant contributions to IUPAC are as follows:

- A Coordinator, the Global Women's Breakfast event in Thailand every year since 2011.
- Chair of the 2014 IUPAC World Polymer Congress (Macro 2014)
- Chair of the 8th IUPAC International Conference on Green Chemistry (2018).
- Co-Moderator, "Today Welcomes Tomorrow", a Panel discussion for IUPAC 100 years Celebration, Paris, France, 2019.

In addition, she has conducted about 100 workshops on small-scale chemistry, green chemistry and chemical safety in Thailand and other countries including Cambodia, Myanmar, Malaysia, Indonesia, the Philippines, Sri Lanka, Mexico, Kuwait, Federation of Russia, Republic of China and the United States.

She has received honorary awards as follows:

- The Science to Excellence Award from the Thailand Senate (2012)
- The Honorary Fellow from the Singapore National Institute of Chemistry (2013)
- The International Microscale Chemistry Award from Microscale Chemistry Network (2015)
- The CST award for Distinguished Contribution to Chemical Education 2016
- FACS Distinguished Contribution to Advancement in Chemical Education 2017
- 2018 IUPAC CCE Distinguished Contribution to Chemical Education Award.
- 2021 IUPAC Distinguished Women in Chemistry or Chemical Engineering Award.

With all her achievements, she has been selected to be one of the leading women chemists in the world to deliver the presentation entitled "Achieving Work-Family Harmony" in 248th ACS National Meeting in 2014, which has later been written as a chapter in the book entitled "Jobs, Collaborations, and Women Leaders of the Global Chemistry Enterprise", ACS Symposium Series 1195.

Professor Tantayanon is still working on promotion and dissemination of small-scale chemistry, green chemistry and chemical safety. Her aim is to introduce the new approach of teaching chemistry with the safely hands-on experiments. Her goal is to attract the students to learn science, in order to increase the number of students who will become the scientists in the future.

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