



# TACT 2021

## International Thin Films Conference

2021年國際鍍膜科技研討會

• Nov. 15-18 2021 • TAIPEI TAIWAN

## Short Course

### Fundamentals of Sputter Deposition/HiPIMS; Control of Micro- and Nanostructure Evolution

Lecturer: Professor Ivan Petrov

Day 1. Nov. 13 (SAT) am 9:00-12:00

Day 2. Nov. 14 (SUN) am 9:00-12:00

#### About the lecturer



**IVAN PETROV** is a Professor of Materials Science and Principal Research Scientist at the Frederick Seitz Materials Research Laboratory (1998-present), and 1998-2010 Director of the Center for Microanalysis of Materials at the University of Illinois at Urbana-Champaign. He has appointments as Professor of Physics at Linköping University, Sweden and Visiting Professor of Materials Science at the National Taiwan University of Science and Technology. He served as Visiting Professor of Surface Engineering at Sheffield Hallam University, U.K (2000-2012). Ivan earned his Ph.D. in

Physics from the Bulgarian Academy of Sciences and received the Doctor Honoris Causa Degree from Linköping University, Sweden. His research interests include nanostructural and nanochemical analyses, thin film physics, and surface science. Ivan conducted the first systematic study of the effects of ion/metal flux ratio and ion energy on microstructure evolution in hard coatings, employing a combination of analytical techniques. He was a co-principal investigator in the US Department of Energy Transmission Electron Aberration-corrected Microscope (TEAM) project which achieved 50 pm resolution. He has published over 350 refereed papers cited ~21000 times. His H-index is 73 with H-index for the past 5 years of 47. His review article on Microstructural Evolution of Thin Films has 1800 citations. Ivan is an Editor of *Surface and Coatings Technology* and member of the editorial board of *AVS Quantum Science*. Ivan is a *Fellow of the AVS* and received the 2009 *Bunshah Award and Honorary Lecture* from the Advanced Surface Engineering Division (ASED) and the 2013 *AVS John Thornton award and Honorary Lecture*. Other awards: 2009 R&D100 award, Bulgarian Academy of Sciences 2014 Emil Djakov Award, 2017-lifetime achievement award by the Taiwan Association of Coatings and Thin Film for his contribution to the field of surface engineering. He serves as TACT 2017 and 2019 Conference Co-Chair. Ivan was ICMCTF Program (1998) and General (1999) Chair, and Chair of the ASED (2001). Currently he serves as the ASED Awards Committee chair and ASED representative at IUVESTA, chair of the Surface Engineering Division of IUVESTA and chair of the IUVESTA Communications Committee. Ivan has served as AVS Director, 2015 AVS President, and AVS Publications Committee Chair.