

PPS Webinar

This webinar of the Polymer Processing Society (PPS) focuses on nano- and Bionano-polymers, an emerging area of research that has far-reaching influence in materials development, characterization and applications. Five distinguished speakers will share their research contributions. The session includes five talks, 30 min each and a question period at the end of the presentations.

Nano- and Bionano- Polymers: Preparation, Characterization and Applications

15:00-18:00, TOKYO TIME, July 15, 2021

Prof. Joung Sook Hong, Seoul National University, S. Korea

Particle network formation control for electrically and mechanically reinforced biopolymer composite development

Prof. Takeshi Kikutani, Tokyo Institute of Technology, Japan

Tentative title: Melt spinning of bio-based and bio-degradable polymers

Prof. Yongjin Li, College of Material, Chemistry and Chemical Engineering Hangzhou Normal University, China

Interface Engineering and Functionalization of Polymer Blends by Reactive Compatibilization

Prof. Abderrahim Maazouz, INSA, University of Lyon, France

Model Biocomposites based on poly (lactic acid) and bioactive glass fillers for bones regeneration: Structure/ innovative processes relationships

Prof. Chi Wang, National Cheng Kung University, Taiwan

Extension rate of straight jet segment during electrospinning



Dr. Joung-Sook Hong is currently research professor in the institute of chemical processes at Seoul National University of South Korea. She received the Bachelor degree in Chemical Engineering from Jeju National University in 1995, and earned her Master and Ph.D. degrees from Seoul National University in 1998 and 2005, respectively. Dr. Hong had been working as a Post-doctoral research fellow at Korea University and University of Queensland at Australia between 2006 and 2008, and working at Samsung Cheil Industry from 2008 to 2009. After then, Dr. Hong moved to academia, worked as assistant professor in Department of Chemical Engineering at Soongsil University till 2015. She received the Young Scientist Award from Korean Society of Rheology in 2016. Her research interests are interfacial rheology of particulate interfacial layer, blend polymer composite and particle dispersion in ternary system. She is the author of more than 50 scientific publications and the author of 12 patents.



Takeshi Kikutani is currently a Specially Appointed Professor in the School of Materials and Chemical Technology, Tokyo Institute of Technology, and in charge of the Idemitsu Kosan Collaborative Research Cluster of Advanced Materials. He received his doctor of engineering degree from Tokyo Institute of Technology in 1982. His main research interests are the mechanism of higher-order structure development in the fiber and polymer processing. Especially, he has been conducting researches on the high-speed melt spinning, bicomponent melt spinning, uni- and bi-axial film stretching, thermoplastic fiber reinforced composites etc. He is the author of more than 280 scientific publications including 190 refereed journal papers, editor and co-editor of 11 books and the author of 38 patents. Dr. Kikutani was also served as the Associate Editor for International Polymer Processing (1996-2009) and currently serving as the Associate Editor for Advanced Fiber Materials.



Dr. Yongjin Li is currently Professor in the College of Materials and Chemical Engineering at the Hangzhou Normal University of China. He received his PhD degree in 2002 from Shanghai Jiaotong University of China. He is now the head of the department of polymer science at the Hangzhou Normal University. Prof. Li's research work deals with the structure control and the structure-property relationship of multi-component polymers, including polymer alloys and polymer composites. Prof. Li has published more than 200 publications in

international peer-reviewed journals and is a (co-)author of 6 book chapters. Prof. Li is now serving as the associate editor of *Journal of Polymer Engineering*. He serves also an Editorial Board Member for several international journals including *Composite Science and Technology*, *Functional Composites Materials*, and *Materials International*.



Abderrahim. Maazouz is a Full Professor of Polymer Engineering and Science in the Laboratory of Polymer Materials Engineering (IMP) at National Institute of Applied Science at Lyon (INSA de Lyon, University of Lyon), France. Currently He is the Chairman of “Polymer Structure – Rheology, Modelling and simulation” center in the lab of IMP-UMR CNRS 5223. He is the Director of the "Polymer and composites processing “in the mechanical department of INSA de Lyon (France). Since 2011, he is member elected at the “National Consul of Universities (CNU-France). Prof. Abderrahim MAAZOUZ is also Resident Member of Hassan II Academy of Science and Technology, Rabat, Morocco. French government recently honored him by the “Palm academic medals”: Palmes académiques as chevalier (2010) and officier (2016). His scientific Contributions lead him to have more than 200 publications including 120 articles peer-reviewed scientific articles, 8 patents, 2 book chapters and more than 150 oral and poster communications where he has on numerous occasions been an invited speaker and a chairman of conferences.



Chi Wang is currently Professor in the Department of Chemical Engineering at the National Cheng Kung University, Taiwan, Taiwan. He received his BS in 1984 and MS in 1986, both from Chemical Engineering of National Taiwan University. In 1992, he earned his PhD from the University of Akron under Prof. Alan N. Gent. He was a visiting professor to the Institut Charles Sadron (CNRS-ULP), France in 2007, and the Chemical Engineering Department, MIT in 2012. He received the outstanding alumni award from Polymer Engineering Department, the University of Akron in 2015. Dr. Wang has been involved in various work including (1) fracture mechanism of polymers and related fiber composites, (2) cavitation of rubber, and (3) microphase separation and tear strength of block copolymers. His recent work focuses on the development of electrospinning process, characterizations of electrospun fibers by using synchrotron WAXD/SAXS, and nanofiber applications. Dr. Wang is the author of more than 100 scientific publications including 90 referred journal papers.