MACRO2022 Educational Workshop and the meet-the-instructor session

Polymer Synthesis

Educational workshop in Polymer Sciences 2022, in conjunction with MACRO2022

This interactive educational workshop on polymers for synthesis was organized in the format of an in-person meeting in conjunction with MACRO2022 in Winnipeg, Canada on 17 July 2022.. It was the first in a projected series of four workshops, covering respectively: synthesis, characterization, processing, and applications of polymers. All three lectures touched on the understanding of the basic science, terms and concepts that are critical to polymer synthesis related to chain-growth polymerization with a particular emphasis on polymerization-induced self-assembly (PISA). Thought-provoking insights into the experimental design, modeling/simulation, and synthesis using artificial intelligence; coupled with the results and discussion of research were presented. Since MACRO2022 was the first in-person conference after the COVID-19 pandemic, three lectures were provided in the presence of approximately 50 on-site participants. Three instructors and many participants actively interacted with each other during the workshop Q&A and the meet-the-instructor sessions, while the pre-uploaded lecture notes are available at the conference website as well as the IUPAC project webpage. (see project 2021-021-1-400)

(1) **Prof. Dr. Michael Cunningham**, Queen's University, Canada

Polymerization-induced self-assembly (PISA): experimental approaches to preparing polymer nano-objects using PISA

(2) **Prof. Dr. Simon Harrison**, The French National Centre for Scientific Research (CNRS), France

Distributions, dispersity, and self-assembly

(3) **Prof. Dr. Su-Mi Hur**, Chonnam National University, Republic of Korea

Advances in polymerization and self-assembly assisted via machine learning and data science

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Lecture notes and video are available at <https://iupac.org/project/2021-021-1-400/>