

2023

1.25 (wed.) 12:10
12:50

12:10-12:15

◆ Introduction

12:15-12:40

◆ Seminar
(Presentation)

12:40-12:50

◆ Q&A

Online
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Recent Topics in Polymer Interface Research and Its Development to Social Implementation

Chair: Assoc. Prof. Toshinori TANAKA (Research Promotion Coordinator of Q-AOS)

**Key Words**

polymer

interface

adhesion technology

mobility

low carbon

Professor **Keiji Tanaka**

Department of Applied Chemistry, Faculty of Engineering



Keiji Tanaka is a Professor at the Department of Applied Chemistry and a Director at Center for Polymer Interface and Molecular Adhesion Science in Kyushu University, Japan. He received his B.S. (1993), and Ph.D. (1997) degrees in Polymer Chemistry from the Department of Applied Chemistry, Kyushu University. Then, he moved to Department of Chemistry at the University of Wisconsin-Madison to be a research associate. In 2000, he was appointed as an Assistant Professor at Kyushu University and was promoted to a Professor in 2009. His research centers on the structure and physical properties of polymers in confined systems, including surfaces, interfaces, and thin films. He is a Fellow of the American Physical Society, an advisory board member of ACS Macro Letters and an Editor-in-Chief of Polymer Journal.

In recent years, there has been a rapid increase in demand for miniaturization and thinning of materials. As the material becomes smaller and smaller, the ratio of the interfacial area to the total sample volume significantly increases. Since the energy level is different at the interface compared to the three-dimensional bulk state, the structure and physical properties are supposed to be different from the bulk. In this lecture, recent topics in polymer science, especially at interfaces, are first introduced and then it is discussed how industry-academia collaboration research in the project led by the lecturer works.