4-3 Innovation of Bio-resources and Advanced Material Based on Colloid Interface and Soft Matter

Session Organizers: Yasuhisa Adachi
Katsuhiko Ariga

Sep26 (Tue) **Conference Room 304**

Keywords
- Soft Matter
- Colloid
- Interface
- Bio-Resources
- Material

Part One Polyelectrolyte at Interface in Environment and Bio-resources

Chair: Hideki Seto, High Energy Accelerator Research Organization (KEK)

09:20-09:30 **Yasuhisa Adachi** — University of Tsukuba
Preface

09:30-09:55 **Junyou Wang** — East China University of science and Technology
Aldrik Velders — Wageningen University
Jasper van der Gucht — Wageningen University
Martien Cohen Stuart — Wageningen University
Assembly of Polyelectrolytes : Towards Soft Nanoparticles for Functional Materials

10:00-10:25 **LiLi Feng** — North China University of Water Resources and Electric Power
Yasuhisa Adachi — University of Tsukuba
Dynamics of colloidal flocculaion with polyelectrolyte

10:25-10:55 **Martien Cohen Stuart**, **Christian Buchcic**, **Marcel Meinders**, **Hans Tromp** — Wageningen University
Softness as a key to successful Pickering stabilization

Part Two Bio-inspired Colloid Complex

Chair: Mafumi Hishida, University of Tsukuba

10:55-11:25 **Andrei Sybachin**, **Alexander Yaroslavov** — Lomonosov Moscow State University
Polycation macromolecule architecture as a key to manipulation for polymer/liposome complexes properties

11:25-11:50 **Kazuyoshi Ogawa**, **Atsushi Tsuyukubo** — University of Tsukuba
Dynamic Light Scattering Studies of Interpolymer Complex Formation between Poly (N-Isopropylacrylamide) and Poly(Acrylic Acid)

Part Three Soft Matter and Advanced Materials

Chair: Kousaku Kawakami, National Institute for Materials Science (NIMS)

13:00-13:30 **Hideki Seto** — High Energy Accelerator Research Organization (KEK)
Effect of interlamellar interactions on shear induced multilamellar vesicle formation

13:30-13:55 **Yusuke Sato** — University of Tsukuba
Yasuyuki Kusaka — AIST
Motoyoshi Kobayashi — University of Tsukuba
Experiments and modeling on the charging and aggregation of cellulose nanofibers in aqueous solutions

13:55-14:20 **Yusuke Hara** — AIST
Development of self-oscillating polymer gel actuators and robots

14:20-14:45 **Mafumi Hishida** — University of Tsukuba
Correlation between hydration states and aggregation structures of lipids studied by THz spectroscopy

Part Four Soft Matter and Industrial Interface

Chair: Hideki Sakai, Tokyo University of Science

15:00-15:30 **Lok Kumar Shrestha** — NIMS
Self-assembled fullerene crystals at liquid-liquid interface: from zero to higher dimensions

15:30-15:55 **Yasuyuki Kusaka** — AIST
Interfacial phenomena in printed electronics

15:55-16:20 **Avinash Bhadani** — Tokyo University of Science
Self-Aggregation and Interfacial Properties of Sustainable Surfactants developed from Renewable Feedstock

16:20-16:30 **Katsuhiko Ariga** — NIMS
Concluding Remarks