

# Tsukuba Global Science Week 2014

September 28th - 30th, 2014

## University of Tsukuba

<http://ura.sec.tsukuba.ac.jp/TGSW2014/>

### Session on Colloid and Interface in Bio-resources and Environment

Sep. 28, 2014

Fundamental of colloid and interface is related to many applications in the field of environmental and biological science. In this session, we focus on the relation between fundamental science and their applications. Complex system of colloids and polyelectrolytes, such as flocculation, poly-ion complex, nano-gel, multi-layer and soft-interface will be discussed. Topics of application in this domain is widely spread out from the soil remediation after nuclear power plant accident, water and waste water treatment, food technology, microbiology, medicine to pharmacy, therefore efforts to find out common interests of fundamental issues are of great value to forward the meaning of polymer, colloid and interface science which will lead to the innovation of different fields.



筑波大学生命環境系  
Faculty of Life and  
Environmental Sciences  
University of Tsukuba



University of Tsukuba

Research unit colloid engineering in bio-resources

Auspices

Faculty of Life and Environmental Science

International cooperative Educational Program for Creation of a Harmonious Asian Community

The Electrokinetic Society of Japan

@ University Hall (Tokubetsu Kaigishitsu)

Program

- 11:00 Yasuhisa Adachi and Lili Feng (University of Tsukuba)  
Flocculation dynamics of PSL particles with polyelectrolytes -Bridging vs. charge neutralization-
- 11:20 Munehide Ishiguro (Hokkaido University)  
Surfactant adsorption and transport in a humic soil
- 11:40 Yuji Yamashita (University of Tsukuba)  
Colloidal properties of humic substances
- 12:00 Tien Duc Pham (Vietnam National University, Hanoi)  
Motoyoshi Kobayashi, Yasuhisa Adachi (University of Tsukuba)  
Adsorption of polyanion and anionic surfactant onto large alpha alumina beads with positively charged surface
- 12:15 Wan Khairunnisa (Universiti Teknologi Malaysia)  
The effect of extraction process on the effectiveness of *Moringa oleifera* as a coagulant
- 12:30 Lunch
- 13:30 A.B. Zezin, V.B. Rogacheva, M.F. Zansokhova, A.A. Yaroslavov (Moscow State University)  
Interpolyelectrolyte complexes for ecology
- 14:15 Noriyuki Kumazawa (Ibaraki University)  
New decontamination methods using water-soluble polymers
- 14:35 Motoyoshi Kobayashi (University of Tsukuba)  
Aggregation and deposition kinetics of model colloidal particles under the influence of attractive electric double layer force
- 14:55 Kenta Yamada (University of Tsukuba)

Amendment effect of polyion complex against raindrop erosion

- 15:10 Coffee break
- 15:30 A.Yaroslavov, A.Sybachin, O.Zaborova, A.Efimova, E.Yaroslavova,  
A.Rakhnyanskaya (Moscow State University)  
Complexes of cationic polymers with anionic liposomes
- 16:00 Sousaku Ichikawa (University of Tsukuba)  
Layer-by-layer multi-coating of large oil droplets by polyelectrolytic dietary  
fibers for the stability control
- 16:20 Kazuyoshi Ogawa (University of Tsukuba)  
Intermolecular interaction observed in polyelectrolyte complex formation using  
microgel
- 16:40 Wenfeng Tan, Yan Li, Mingxia Wang (Huazhang Agricultural University),  
Luuk Koopal (Wageningen University)  
The complexation of protein and humic substances
- 17:00 Hiroyuki Ohshima (Tokyo University of Science)  
Electrostatic interaction between soft particles
- 17:30 Floor discussion
- 17 : 50 Closing