

東京理科大学 研究推進機構 総合研究院
界面科学研究部門 2018 夏季シンポジウム

Summer Symposium 2018, Division of Colloid and Interface Science (DCIS),
Research Institute for Science and Technology (RIST), Tokyo University of Science (TUS)

August 2, 2018, 10:00~17:50 at Morito Memorial Hall, Forum Room No. 1

10:00-10:10 **Opening Remark**

Prof. Hideki Sakai (Director of DCIS)

10:10-12:10 **部門メンバーによる研究紹介**

座長：近藤 行成

10:10-10:30 分子集積による光機能性高分子材料の高性能化
青木 健一（理学部第二部化学科）

10:30-10:50 ダイヤモンドの表面修飾による機能性材料の創製
近藤 剛史（理工学部先端化学科）

10:50-11:10 バイオ応用を目指した感温性微粒子の調製
菊池 明彦（基礎工学部材料工学科）

座長：橋詰 峰雄

11:10-11:30 **Pattern Formation of Surface Driven System-Self Propulsion**
住野 豊（理学部第一部応用物理学科）

11:30-11:50 有機半導体単結晶上の界面科学
中山 泰生（理工学部先端化学科）

11:50-12:10 有機分子の吸着に伴う金属表面電子系の変化
金井 要（理工学部物理学科）

12:10-13:10 **Lunch Break**

13:10-16:30 **Progress Reports from Graduate Students of DCIS**

Chair: Masaaki Akamatsu

13:10-13:20 **Linear Polarization Property of Ag Deposited Polystyrene Particles Prepared by UV
Irradiation**

Kazuhiko Kinoshita (T. Kawai)

13:20-13:30 **Preparation of Photo- and Thermo-Responsive Coloring Emulsion**

Ryoichi Kondo (T. Kawai)

- 13:30-13:40 Polymerized Cu(II) Dipicolylamine Complexes: Relation Between Interaction with DNA and Polymer-Structure Dependent Anticancer Activity
Kento Ijiri (H. Otsuka)
- 13:40-13:50 Preparation of IGF-1 Conjugated Injectable Hydrogel with IPN Structure and Controlling the Conjugation-Linker Length to Maximize Three-dimensionally Cultured Chondrocyte Function
Hiro Yamaguchi (H. Otsuka)
- 13:50-14:00 Preparation of Supported Gold Nanoflowers and Its Catalytic Property
Ryota Kan (T. Kawai)
- 14:00-14:10 Ultrathin Au Nanowires Synthesized in Aqueous Phase Using an Amine Derivative
Naoya Miyajima (T. Kawai)

Chair: Ke-Hsuan Wang

- 14:20-14:30 Dissolution Behavior of Cimetidine Depends on the Crystal Structures of Cyclodextrins
Shota Shimizu (S. Goto)
- 14:30-14:40 Oxybuprocaine Incentivizing the Enhancement of the Observed Solubility of Piroxicam beyond Its Peculiar Supersaturation
Momoko Fujita (S. Goto)
- 14:40-14:50 α -Gel Formation by Oleic Acid-Based Gemini Surfactant
Tadashi Sugahara (H. Sakai & K. Sakai)
- 14:50-15:00 Characterizing Chemical and Electronic Structure of Graphitic Carbon Nitride with Photoelectron Spectroscopy
Kenichi Aoyama (K. Kanai)
- 15:00-15:10 Preparation of Flexible Silver-Colored Organic Crystals
Kazuki Yamada (Y. Kondo)
- 15:10-15:20 Production of Golden Luster by Mixing an Azobenzene Derivative and Liquid Crystals
Ko Fukushima (Y. Kondo)

Chair: Yoshiro Imura

- 15:30-15:40 Effect of Molecular Weight and Chemical Modification of Hyaluronic Acid on Polysaccharide Composite Films
Minami Sakakibara (M. Hashizume)

- 15:40-15:50 Fabrication of Polysaccharide Coated Alginate-Ca Fibers Utilizing Aqueous Solution
Interface Spinning Method
Hiroki Morizumi (M. Hashizume)
- 15:50-16:00 Statistical Analysis of an Irregular Oil Droplet Motion Driven by Aggregate Formation
Shuhei Kuroiwa (Y. Sumino)
- 16:00-16:10 Epitaxial Growth of the Organic pn Heterojunctions
Ryohei Tsuruta (Y. Nakayama)
- 16:10-16:20 Ultrafine Biicosahedral $[\text{Au}_{24}\text{Pd}(\text{S}_{\text{C}_2\text{H}_4\text{Ph}})_5(\text{PPh}_3)_{10}\text{Cl}_2]^+$ Cluster:
Precise Synthesis, Its Novel Geometric and Electronic Structure
Yukari Imai (Y. Negishi)
- 16:20-16:30 Evaluation of Water-Splitting Photocatalytic Activity Using Various Precise Heteroatom
Doped Alloy-Cluster Cocatalysts
Kosuke Wakamatsu (Y. Negishi)
- 16:40-17:40 **Invited Lectures**
- Chair: Kenichi Sakai
- 16:40-17:10 Sugar-Derived Hierarchically Nanostructured Porous Carbons via a Combined Colloidal
Templating-Hydrothermal Approach.
Dr. Shiori Kubo (Research Institute for Chemical Process Technology, AIST)
- 17:10-17:40 Self-Assembled Fullerene Nanomaterials
Dr. Lok Kumar Shrestha (International Center for Materials Nanoarchitectonics, NIMS)
- 17:40-17:50 **Closing Remark**
Prof. Takeshi Kawai
- 18:00-19:30 **Banquet** (Morito Memorial Hall)