

# Polycondensation 2008

September 8 – September 11, 2008

At Tokyo Institute of Technology, Ookayama, Meguro, Tokyo, Japan

## Program

### September 8 (Mon)

- 9:00 Registration
- 10:00 Opening Remarks

#### **Discussion Leader: Cor E. Koning (Eindhoven Univ of Tech, Netherlands )**

- 10:10 Timothy E. Long (Virginia Tech, USA)  
Designing Segmented Ammonium Ionenenes: From Gene Transfer Agents to High Performance Elastomers
- 10:30 Moonhor Ree (POSTECH, Korea)  
Synthesis, Structure and Properties of Novel Brush Polymers
- 10:50-11:00 Coffee Break
- 11:00 Tsutomu Yokozawa (Kanagawa Univ, Japan)  
Control over Molecular Weight and Polydispersity of Hyperbranched Polyamides
- 11:20 Sung Chul Kim (KAIST, Korea)  
Polyurethane/Clay Nanocomposite Coating
- 11:40 Teruaki Hayakawa (Tokyo Tech, Japan)  
Synthesis and Morphology Studies of Polysulfone Derivatives for Proton Exchange Membranes
  
- 12:00-13:30 Lunch

#### **Discussion Leader: Timothy E. Long (Virginia Tech, USA)**

- 13:30 Cor E. Koning (Eindhoven Univ of Tech, Netherlands )  
Bio-based Polyesters and Polycarbonates for Coatings and Engineering Plastics Applications'
- 13:50 Sheng-Huei Hsiao (Tatung Univ, Taiwan)  
Fluorescent and Electrochromic Polyamides with Pyrenylamine Chromophore
- 14:10 Kenneth J. Wynne (VCU, USA)

Contrasting Nanoscale Surface Morphologies for Polyurethanes with  
random and block Fluorous/PEG Co-Polyoxetane Soft Blocks

14:30-14:50 Coffee Break

14:50 Tae Ho Yoon (Gwangju Institute of Sci and Tech, Korea)  
Synthesis and Characterization of Polyimides with Low CTE for  
FPCB Applications

15:10 Philippe Desbois (BASF, Germany)  
Polyamides at BASF

15:30-17:00 Poster Presentation

**Discussion Leader: Frank W. Harris (The Univ of Akron, USA)**

17:00 Plenary Lecture by Professor Hans R.Kricheldorf (Inst. fuer Techn. u.  
Makromol. Chemie, Germany)  
The Law of Self-Dilution and the History of Step-Growth  
Polymerization

17:50 Piano Play by Mrs. Emi Hayashida (Yoneyama)

18:20 Welcome Party

## September 9 (Tsu)

9:00 Registration

### Discussion Leader: Kunio Kimura (Okayama Univ, Japan)

9:20 Masatoshi Hasegawa (Toho Univ, Japan)

Low-CTE and Low-CHE Poly(ester imide)s

9:40 E-Joon Choi (Kumoh National Institute of Tech, Korea)

Synthesis and Electrooptical Properties of Polymers Containing Bent-Shaped Mesogen with Acute-Subtended Angle

10:00 James L. Hedrick (IBM, USA)

High Performance Thermosets And Their Application To Probe Storage

10:20 Yakov S. Vygodskii (INEOS RAS, Russia)

The Synthesis of Polyheteroarylenes in Ionic Liquids

10:40-11:00 Coffee Break

11:00 Stefan Lundmark (Perstorp Specialty Chemicals AB, Sweden)

Polycondensation Reactions in Intumescent Systems

11:20 Loon-Seng Tan (US Air Force, USA)

In-situ Polycondensation: Solubilization of Carbon Nanofibers and Nanotubes with a Hyperbranched Poly(ether-ketone)

11:40 Hiroyoshi Kawakami (Tokyo Metropolitan Univ, Japan)

Fluorinated Polyimides as Biomaterials

12:00-13:30 Lunch

### Discussion Leader: Moonhor Ree (POSTECH, Korea)

13:30 Plenary Lecture by Professor Junji Watanabe (Tokyo Tech, Japan)

Unusual Nematic Liquid Crystal with Polar Cs Symmetry Formed from Aromatic Polyesters with Head-Tail Character

14:20-14:30 Coffee Break

### Discussion Leader: James L. Hedrick (IBM, USA)

14:30 Chang-Sik Ha (Pusan National Univ, Korea)

Polyimides for optoelectronic devices: from aliphatic polyimides to colorless transparent polyimides

- 14:50 Kenneth R. Carter (Univ of Massachusetts – Amherst, USA)  
Polycondensation Brush Layers
- 15:10 Sam Verbrugghe (Ghent Univ, Belgium)  
Functionalized Polymers by Combination of 'Click' Chemistry and  
Step Growth Polymerization
- 15:30-15:50 Coffee Break
- 15:50 Shiyong Yang (Institute of Chemistry, Chinese Academy of Sci, China)  
Aromatic Polyimide Resins with High Toughness For Microelectronic  
Packaging Substrates
- 16:10 Yoshiharu Kimura (Kyoto Institute of Tech, Japan)  
Synthesis of Stereoblock Polylactides by Solid-State Polycondensation
- 16:30 Ramaz Katsarava (Technical Univ of Georgia, Georgia)  
AABB-Poly(depsipeptide)s – a New Class of Amino Acid Based  
Biodegradable Polymers
- 16:50-18:00 Poster Presentation

## September 10 (Wed)

9:00 Registration

### Discussion Leader: Kohei Goto (JSR, Japan)

9:20 Guey-Sheng Liou (National Taiwan Univ, Taiwan)  
Synthesis, Electrochemical, and Electrochromic Properties of Novel Soluble Aromatic Poly(amine ketone)s

9:40 Alain Fradet (Univ P. et M. Curie, France)  
Predicting Average Molar Masses And Polydispersities In Complex Hyperbranched Polycondensations.

10:00 Kunio Kimura (Okayama Univ, Japan)  
Preparation of Poly(4-phthalimide) Nanoribbons and Study on Crystal Structure

10:20 Frank W. Harris (The Univ of Akron, USA)  
Synthesis and Characterization of Thermoplastic Polyphenoxyquinoxalines

10:40-11:00 Coffee Break

11:00 Theo J. Dingemans (Delft Univ of Tech, Netherlands)  
All-aromatic Main-chain Nematic Thermoset Polymers

11:20 Rudy R. Rulken (DSM, Netherlands)  
Formation of Higher Cyclic Oligomers in PA46

11:40 John W. Connell (NASA Langley, USA)  
Preparation and Characterization of Polymer/Metal Nanoparticle Decorated Carbon Nanotube Nanocomposites

12:00-13:30 Lunch

### Discussion Leader: Shiyong Yang (Institute of Chemistry, Chinese Academy of Sci, China)

13:30 Ben Zhong Tang (The Hong Kong Univ of Sci & Tech, Hong Kong)  
Polycyclotrimerization of Arylene Bipropiolate: A Convenient Approach to Regioregular Hyperbranched Polymer

13:50 Mihye Yi (Korea Research Institute of Chemical Tech, Korea)  
Aromatic Polyimide Gate Insulators with Low Temperature Processability for Pentacene Organic Thin-Film Transistors

- 14:10 Christopher W. Bielawski (Univ of Texas at Austin, USA)  
N-Heterocyclic Carbenes: Novel Building Blocks for Accessing  
Functional Polymeric Materials
- 14:30-14:50 Coffee Break
- 14:50 Regis Mercier (CNRS, France)  
Synthesis of New Polybenzimidazole Ionomers
- 15:10 Kohei Goto (JSR, Japan)  
Development of Aromatic Polymer Electrolyte Membrane for Fuel Cell
- 15:30 Lien-Chung Hsu (National Cheng Kung Univ, Taiwan)  
Synthesis and Properties of Polybenzimidazoles and Their  
Nanocomposite Membranes for Fuel Cell Applications
- 16:00-21:00 Banquet: Yokohama Bay Cruise

## September 11 (Thr)

**Discussion Leader: Mitsuru Ueda (Tokyo Institute of Technology)**

- 9:20 Der-Jang Liaw (National Taiwan Univ of Sci and Tech, Taiwan)  
Organo-soluble Rigid Polymers with Pyridine and Chromophore  
Functional Groups by Polycondensation
- 9:40 Sang Youl Kim (KAIST, Korea)  
Poly(arylene ether)s via Trifluoromethyl Activated Nucleophilic  
Aromatic Substitution Polycondensation
- 10:00 Dennis Smith (Clemson Univ, USA)  
New Step-Growth Polyaddition and Polycondensation Reactions of  
Aromatic Trifluorovinyl Ethers
- 10:20 Yun Chen (National Cheng Kung Univ, Taiwan)  
Synthesis and Optoelectronic Properties of Hyperbranched  
Polyfluorenes
- 10:40-11:00 Coffee Break
- 11:00 Yuichi Ishida (JAXA, Japan)  
Development of Highly Soluble Addition-type Imide Oligomers  
Containing Fluorene Rings and Polyimide / Carbon Fiber Composites
- 11:20 Alexander Rusanov (INEOS RAS, Russia)  
New TNT-based sulfonated monomers and polymers
- 11:40 Tatsuo Kaneko (JAIST, Japan)  
Development of Plant-Derived High-Performance Polymers
- 12:00 Closing Remarks